



Colorproof XF™

GRAPHIC ARTS SOLUTIONS

POWERED BY



MANUAL



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1 Introduction

This chapter is a brief introduction to EFI XF. It describes the purpose for which the software was designed and provides details of the hardware and software requirements necessary to set up and run your software. In addition, this chapter includes an overview of the structure of the manual and also explains where to receive help if you encounter problems with your product.

1.1 What is EFI XF?

EFI XF is the perfect tool for anyone wanting to achieve high-quality color reproduction. The software runs on both Windows and Macintosh, is easy to use and produces color-accurate proofs, while avoiding the need for complicated color management settings.

The standard media and simulation profiles provided with the software enable your printer to simulate a wide variety of different output devices.

EFI XF is, therefore, ideal for printing houses, designers, photographers, agencies and service providers in the print media industry, for whom predicting color-accurate print results constitutes an important part of their daily work.

1.2 Program architecture

EFI XF is based on a Server/Client architecture of modular design. A Server version installed on one computer can be accessed from an unlimited number of Client versions installed on the same or on any other computer. This allows users maximum flexibility in customizing the software to suit their own particular workflow requirements.

The minimum version of the software comprises:

- EFI XF (includes one Server version and an unlimited number of Client and Job Monitor versions)
- One Output M Option (for one printer)

However, a wide range of add-on modules is available to supplement the standard version. With the use of the appropriate modules, users can create their perfect workflows and completely do away with the need for third-party products.

1.3 System requirements

The following recommended system requirements are necessary to install and run EFI XF successfully.

1.3.1 Windows

Operating systems

- Windows XP Home Edition
- Windows XP Professional
- Windows 2003 Server standard

Hardware

Server	<ul style="list-style-type: none">• 2 GHz Pentium IV PC or higher (dual processor recommended)• 1 GB RAM for each processor• 60 GB free hard disk space• 10/100 MBit network interface card• 2 available USB ports (for dongle and measuring device)
Client	<ul style="list-style-type: none">• 2 GHz Pentium IV PC• 512 MB RAM• 10/100 MBit network interface• 1 available USB port (for measuring device)

1.3.2 Macintosh

Operating systems

- Mac OS X 10.3 and higher

Hardware

Server	<ul style="list-style-type: none">• Intel Mac (native), Power Mac G5 (dual processor recommended),• 1 GB RAM for each processor• 60 GB free hard disk space• 10/100 MBit network interface card• 2 available USB ports (for dongle and measuring device)
Client	<ul style="list-style-type: none">• Intel Mac (native) or PowerPC processor G4, G5• 512 MB RAM• 10/100 MBit network interface card• 1 available USB port (for measuring device)

1.4 About this manual

This manual explains how to set up and use EFI XF. Users of this manual should already be familiar with:

- The operating system on which their software is installed
- The subject of color management

The manual is divided into the following chapters:

Chapter 2 explains how to proceed after installation. It contains details of how to license EFI XF and describes how to run the software for the first time.

Chapter 3 describes the program structure of EFI XF and is designed to help you to find your way around your new software as quickly as possible.

Chapter 4 describes the settings in System Manager. This program window is available to administrators of EFI XF only.

Chapter 5 leads you step by step through the process of how to set up and maintain different workflows. You will also learn how to create users and allocate access rights.

Chapter 6 describes the settings available in the program window Job Explorer.

Chapter 7 leads you step by step through the process of how to load, process and monitor print jobs.

Chapter 8 deals with the subject of nestings.

Chapter 9 describes the menu commands available in EFI XF Control.

Chapter 10 describes the functions that are available with the add-on Production Option, such as tiling, color adjustment settings and step & repeat.

Chapter 11 deals with the add-on module Color Verifier, a tool which enables you to check color consistency by comparing the color readings of a printout with reference values.

Chapter 12 is concerned with the add-on module Color Editor. It describes how to define and output spot colors.

Chapter 13 explains how to use LinTool to linearize your printer. It also describes how you can create your own profiles using the add-on module Color Manager.

Chapter 14 deals with the OneBit Option, an add-on module for processing one-bit files.

Chapter 15 describes how to use the add-on Dot Creator Option to output halftone screens from continuous-tone data.

Chapter 16 provides information on the add-on options for file output and gravure output. The File Output Option enables you to output job files to a number of different file formats, whilst the Gravure Output Option makes it possible to create separated grayscale TIFF files with automatic anti-aliasing.

Chapter 17 deals with the Fiery Option, an add-on module which enables you to print via any EFI Fiery output device.

Chapter 18 is concerned with troubleshooting. It explains how to proceed if you encounter problems while working with EFI XF. Here, you will also find contact details of EFI Support should you require further assistance.

Chapter 19 explains how to uninstall EFI XF.

A glossary at the end of the manual explains some of the terms that you will come across when working with EFI XF.

1.5 Manual conventions



Notes give additional, useful information about specific topics.



Warnings must be read carefully. They indicate permanent actions which, once executed, cannot be undone.

EFI XF runs on both Windows and Macintosh OS. With the exception of the uninstall procedures and the printer driver description, which are described separately for each operating system, all the screen captures illustrated in this manual have been created from the Windows version of the software.

Therefore, if you are using the Macintosh version of EFI XF, you may notice slight differences in the appearance of your software. However, unless otherwise stated, the functionality of the user interface is the same for both operating systems.

2 Getting started

This chapter describes how to license EFI XF to enable you to access the software options that you have purchased. It also explains the steps to take when starting the software for the first time.

2.1 Licensing your software

EFI XF is a modular-based software, designed to guarantee that you receive a product tailored to meet your individual workflow needs. The software is subject to a complex license management system, which ensures that only those options which make up your chosen configuration are visible in the software.

2.1.1 How does the license management system work?

A so-called "EAC" (Entitlement Access Code) is provided to you whenever you purchase EFI XF or one of its modules. The EAC contains information about the product and output options you have purchased and are, therefore, entitled to use.

To prevent unlawful copying of the software, EFI uses a hardware copy protection (dongle). The dongle is a piece of hardware which has an electronically integrated "dongle ID". Each dongle is unique and can be identified by its ID.

Before using EFI XF, you must first create a link between the software configuration you have purchased and the dongle by generating a "license file". This is performed at EFI's Product Activation website.

The number of license files you require depends on the particular software configuration you have purchased. If any license file is not detected when you launch EFI XF, that part of the software will not be available. If no license file is detected, the Client will not start and an error message will appear.

2.1.2 Where to get the EAC code

Your dealer is responsible for ensuring that you receive all the necessary items. You will find the EAC code printed on the Product Activation Certificate. If the Product Activation Certificate is missing from the scope of delivery, please contact your dealer for assistance.

2.1.3 How to determine the correct dongle ID

You will find the dongle ID in EFI XF Control:

- Windows: Right-click the EFI XF Control button in the system tray on the lower right of the computer desktop and select the command "Show dongle ID" from the context menu.
- Macintosh: Hold down <Ctrl> and click the EFI XF Control button in the Dock. Then select the command "Show dongle ID" from the context menu.



2.1.4 Generating a license file

Before you can download a license file, you must first install the software. Follow the installation instructions provided in the printed booklet.



It is a good idea to save your license files in a safe place, should you need to reinstall them at any time.

To generate a license file, proceed as follows:

1. Go to the website <http://activation.efi.com>. The "Login" dialog opens.
2. Make a language selection to define the display language.
3. Type the Entitlement Access Code (EAC) printed on the shipped Product Activation Certificate. Please note that the EAC code is case-sensitive.
4. Click "Submit" to open the "Entitlement Information" dialog.
5. Select the check box to the left of each listed product to indicate the modules for which you wish to generate a license file.
6. Click "Next" to open the "Host Information" dialog.
7. Type your dongle ID in the edit box.



Please note that the dongle ID is NOT the BT-xxxxx-xxxx number on the label which may be attached to the dongle. Use one of the methods described above to determine the correct dongle ID.



License files are generated for a specific dongle ID. Therefore, it is essential that the code you type matches exactly the dongle ID. If you type an incorrect code, the license file will not be detected when you launch the software.

8. Click "Next" to open the "Confirm Your Selection" dialog.
9. Check the order information and the dongle ID.
10. Click "Generate License" to open the "License(s)" dialog.
11. Specify how you want to receive your license file.

Click "Save to File" to save the generated license file to a defined location on your computer. The license file is saved in text format with the file extension *.lic.

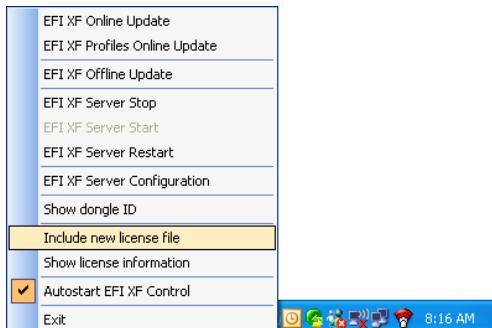
Type an e-mail address and click "Send Email" to send the license file to any valid e-mail address. A dialog opens to confirm that the license file has been sent to the specified e-mail address.

12. Click "Logout" to exit the website.

2.1.5 Installing the license file



- Make sure that only the EFI XF dongle is plugged into your computer when installing the license file. If multiple dongles are plugged in, this can lead to license recognition problems.
- If you are installing a license file in order to extend an existing software configuration, please make sure to exit all Client versions of the software before performing the following steps.



1. From EFI XF Control, select the command "Include new license file".
2. Navigate to the license file, select it and click "Open". The license file is automatically copied to the folder "FlexLM".



If you are installing this software to upgrade a previous version, make sure that you do NOT delete the existing license files from the FlexLM folder. These are required in addition to the new license files.



If you want to check which license files are installed on your computer, select "EFI XF Server Information" from the "?" menu (Windows) or from the "Help" menu (Macintosh). A list of currently installed licenses is displayed on the "Valid Licenses" tab.

This command is only available if Server and Client are installed on the same computer.

You can now start EFI XF.



When you install a license file, it is automatically linked to the computer on which the Server software is installed. The link is created by adding the computer name to the information stored in the license file. Therefore, please be aware that, if you change the computer name, EFI XF will no longer recognize the license file.

To remedy the problem, reinstall the license file via EFI XF Control.

2.2 Starting your software for the first time

When you restart your computer after installing the software, the Server software starts automatically.

The Server is the “brain” of EFI XF. The Client software simply provides users with an intuitive user interface. All settings and actions initiated on the Client computer are sent to the Server for processing.

The Client software can be installed on as many computers as required.



Please note that the software cannot be started before it is licensed.



If a firewall is in use in your network, please make sure that it is configured so that communication between Server and Client computers is possible.

The Server computer requires the TCP port 50005. If this port is not available, this may mean deactivating the firewall software on the Server computer.

If the firewall is installed for the network and cannot be deactivated, then it is important to ensure that the following TCP ports are available to run the Server and Client:

PC: 50005 to 50008
Mac: 50005 to 50025

To start your Client software for the first time, proceed as follows:

1. Double-click the EFI XF icon. On Windows computers, this is located on the desktop. On Macintosh computers you will find the icon in the Dock.



The Login window opens.



Please note that the software cannot be started before it is licensed. If an error message appears to inform you that no valid license is available, you may have generated a license for an incorrect dongle ID.

Open the license file to check which dongle ID you typed in. If this does not match the dongle ID displayed in EFI XF Control, please send an e-mail to:

- eu.activation@efi.com
(for Europe/Asia/Australia/Africa)
- us.activation@efi.com
(for North and South America)

giving details of:

- the EAC code(s) of the incorrectly generated license(s)
- the correct dongle ID (from EFI XF Control)
- the incorrectly typed dongle ID (printed in the license file)



2. Log in as an administrator, by typing the default login information, as follows:

User name: admin
Password: admin

The first user of EFI XF must log in as an administrator. This is necessary to set up the software for use.



You can change the password later in the software, if you wish. However, please note that if the default administrator is the only user with administrator rights and you change and later misplace the password, you will no longer be able to access the software to make settings at administrator level.

3. Type the IP address of the Server computer.



- Ask your system administrator if you are not sure of the TCP/IP address.
- If Server and Client are installed on the same computer, you can type in "localhost" instead of an IP address. This means that the default IP address 127.0.0.1 is used by the software.

The connected Server is displayed at the bottom right of the program window.

4. Click "OK". A message informs you to configure the output device for printing.



If an error message appears at this point to inform you that no valid license is available, cancel the login procedure and first follow the instructions in "Licensing your software" on page 2-1 to generate and install a license file.

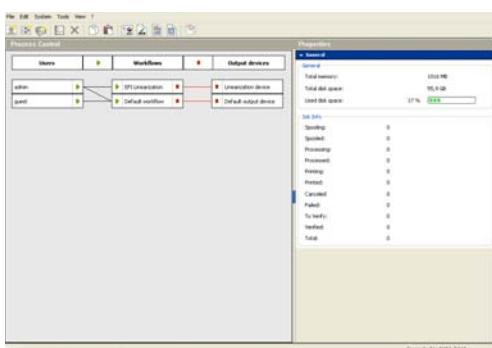
5. Click "OK" to display the program window System Manager.



If System Manager is not displayed by default at program start, click the appropriate button in the toolbar.

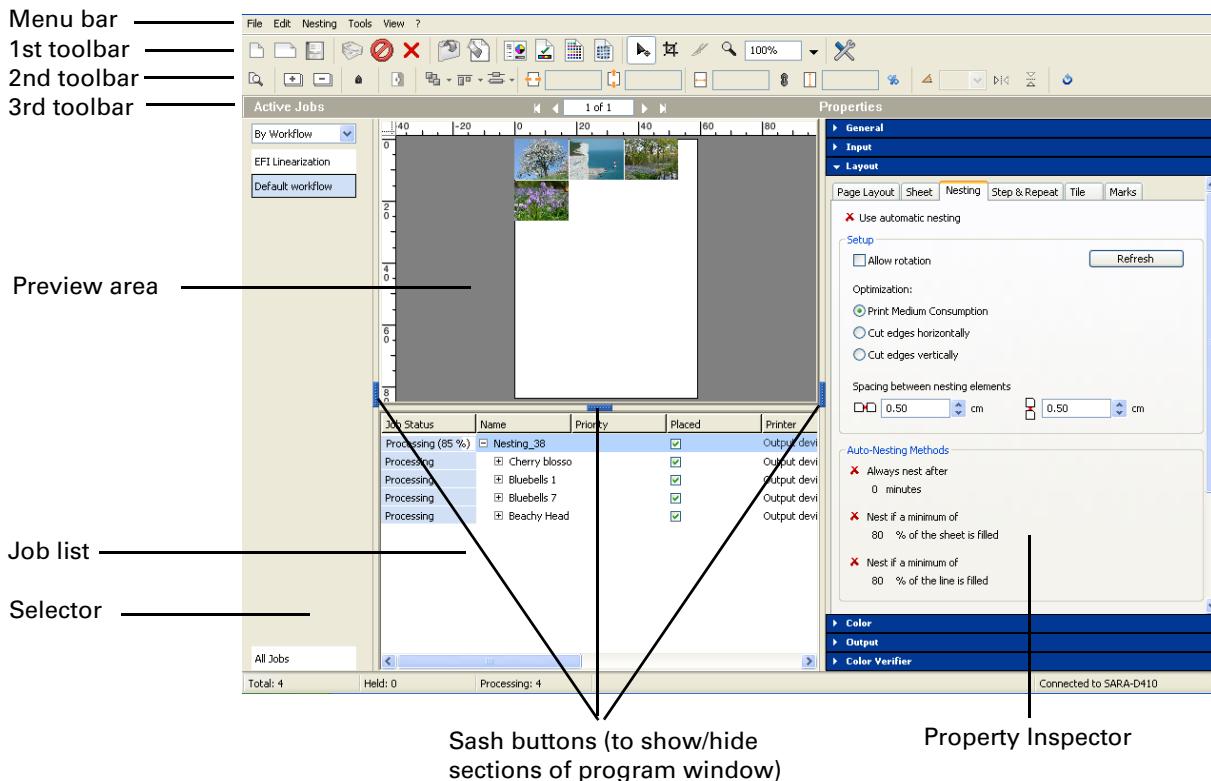


You are now ready to set up EFI XF for use. Follow the steps in "Creating and managing system workflows" on page 5-1 for further information.



3 Getting to know your software

This chapter explains the program structure of EFI XF. It is designed to help you to come to grips with the software quickly and easily.



3.1 Program windows

The user interface of EFI XF is divided into the following two program windows, which you display by clicking the appropriate button in the program window bar:



- Job Explorer (administrators and users)
Here you load and apply settings to your print jobs.
- System Manager (administrators only)
Here you set up and configure your workflows and printers, create users and grant them access rights to print via specific workflows.

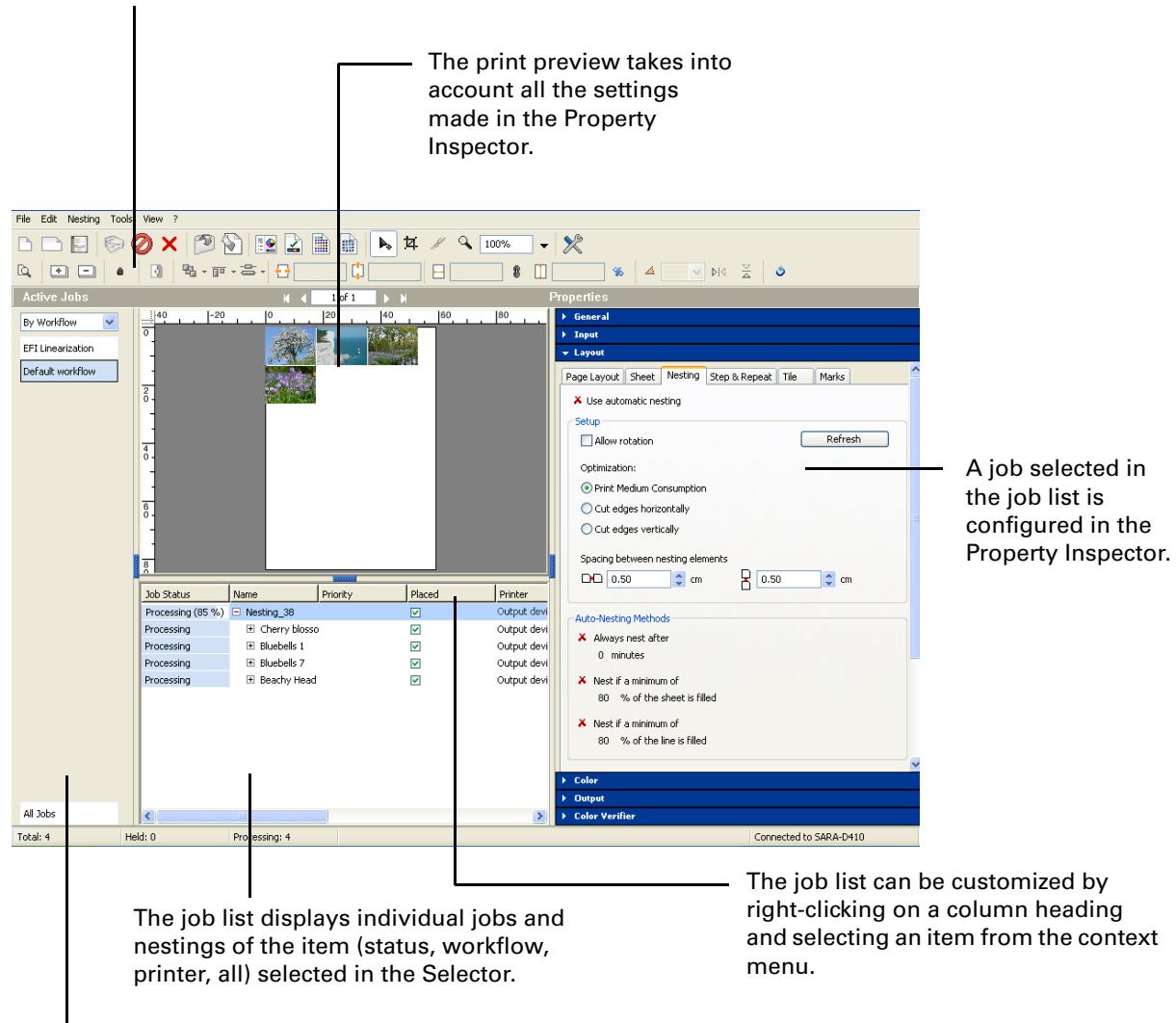
Each program window has a similar design:

- The left-hand side consists of a layout area, in which you apply settings to a selected object.
- The right-hand side consists of a Property Inspector which displays the properties of a selected object.
Any settings made in the Property Inspector are applied to the object selected in the layout area.

The program window above shows Job Explorer.

3.1.1 Job Explorer

With the toolbar buttons you modify the appearance of your jobs. The changes you make here are mirrored in the settings of the same name in the Property Inspector.



The Selector is displayed when you click on the appropriate sash button. The Selector acts as a kind of filter for defining which jobs will be displayed in the job list. Jobs can be sorted according to status, workflow or printer. Alternatively, you can opt to display all loaded print jobs, regardless of status.

The Job Explorer is where you load, organize and preview jobs, and make job settings.

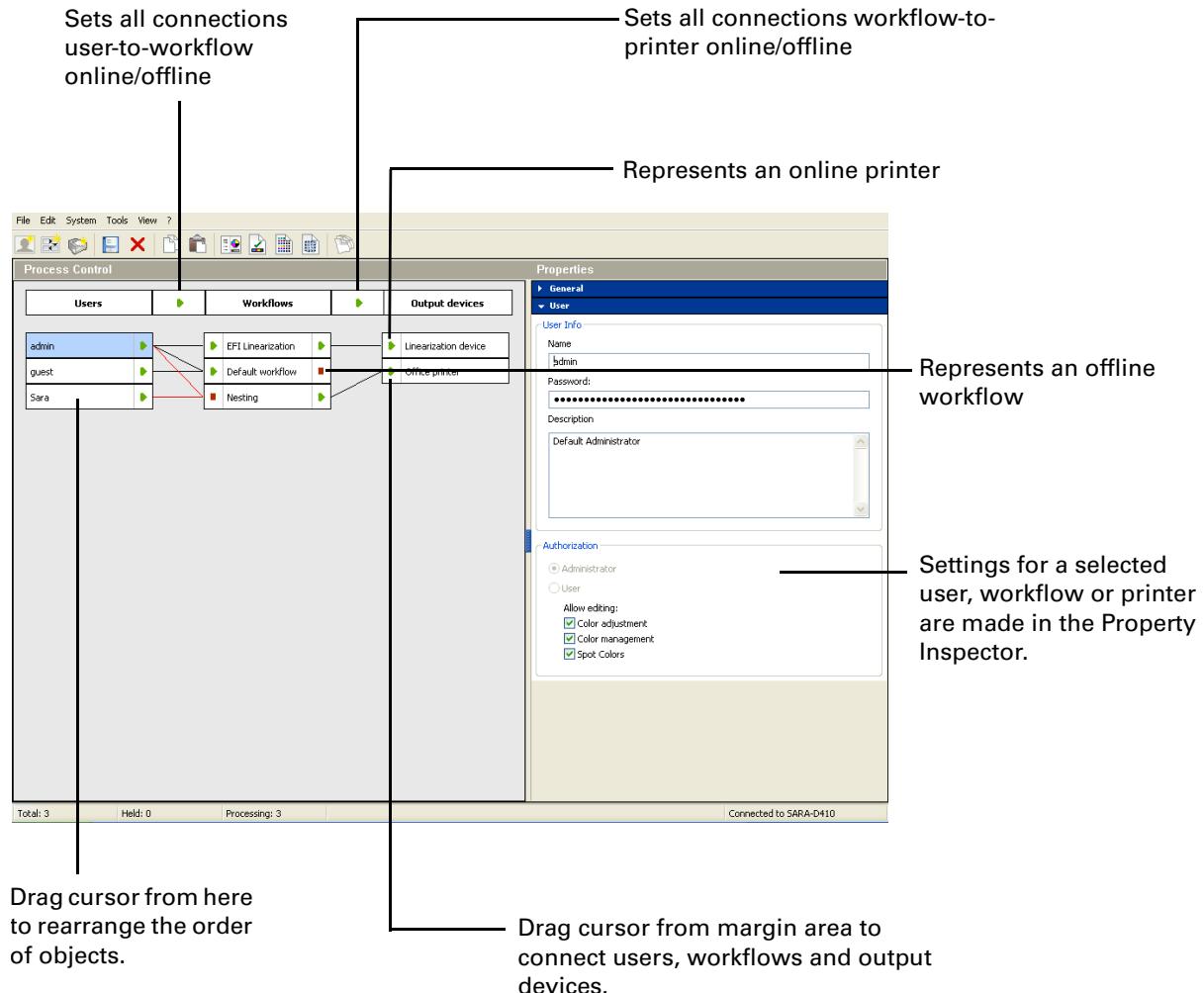
The job list provides an overview of jobs. Which jobs are displayed is determined by the selection made in the Selector. The Selector acts as filter, listing jobs according to workflow, output device or job status. The button "All Jobs" lets you view all your jobs in the job list.

The job list gives information about job status, file name, job priority, whether a job is placed in a nesting, printer, number of pages in job, number of copies, file size, file format and the date and time the file was submitted for printing. These are the default headings. However, you can add additional columns or remove the default ones by right-clicking on a column heading and selecting the required items from the context menu. Job status and job name cannot be removed.

You can change the order of the columns in the job list by holding down the mouse button on a column heading and dragging to the left to a different position. The position of the columns "Job Status" and "Name" cannot be changed.

Each possible job status is indicated by a specific color to make it easier to search for jobs of a particular status.

3.1.2 System Manager



The System Manager window is available only to users with administrator status.

The System Manager consists of two default system workflows. It enables the users "admin" and "guest" to print immediately via the default workflows "EFI Linearization" and "default workflow" as soon as you have set up the output device for your printer. The workflow "EFI Linearization" is used primarily in conjunction with EFI LinTool and EFI Color Manager.

In addition, you create and configure your own system workflows in this window.

System Manager gives you a clear overview of:

- which users are assigned to use each workflow
- which output device is assigned to each workflow

Print jobs may be halted at certain stages of the workflow to prevent them from being processed or output. This may be desirable to perform certain tasks. For example, a workflow can be diverted quickly and easily to another output device if a particular printer needs servicing.

The changes you make in this window are applied to all jobs in the job list that have not yet been processed. Print jobs that are already being processed will be completed.

4 Settings in System Manager

This chapter describes the individual settings concerned with creating and setting up system workflows. It deals only with those settings available in the basic software configuration. If you have extended your product to include one or more add-on modules, the additional settings relating to the new options are dealt with in the respective chapters later in this manual.

4.1 Menus

4.1.1 File menu

New

- User

Choose this command to add a new user.

- Workflow

Choose this command to create a new workflow that is based on the default workflow or on any other workflow that you have previously saved as a workflow template.

- Output Device

Choose this command to create a new output device.

Save

Choose this command to save all the changes made to the system workflow.

Save as Template

Choose this command to save a new workflow template you have created under any chosen name. Workflow templates form the basis for new workflows with the same or similar settings.

Backup

Choose this command to create a backup copy of your system workflows.

Restore

Choose this command to restore a previously backed up copy of your system workflows.

Login

Choose this command to display the "Login" dialog. This command enables you to log in under a different user name or to log on to a different Server.

Logoff and Exit

Choose this command to log off and exit EFI XF. The next time you start EFI XF the "Login" dialog opens.



It is advisable to log off with this command if more than one person is using the same computer. This ensures that each user logs on to his workflow settings.

Exit (Windows)/Quit EFI XF (Macintosh)

Choose this command to exit EFI XF. The next time you start EFI XF you will automatically be logged on with the same user data.



In the Macintosh version of the software, you will find the command in the EFI XF menu.

4.1.2 Edit menu

Languages (Windows only)

Choose this command to change the language in which the user interface is displayed. You must restart the Client before the new language takes effect. By default, EFI XF is displayed in the language of the operating system.



- On a Macintosh, you can change the language via the international settings in "System Preferences".
- Please note that to display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports 2-byte fonts.

Measurement system

Choose this command to define which system of measurement is used in EFI XF. The default setting corresponds with the system of measurement set up in the operating system. However, you can choose between millimeter, centimeter, meter, inch and foot.

Monitor profile

EFI XF provides you with the opportunity to verify color accuracy on a computer screen. This is known as "soft proofing". However, much like the color output of each printer can vary greatly, so each monitor displays color slightly differently. To overcome this problem, it is important that the monitor is regularly calibrated to a certain standard. Monitor calibration consists of two steps:

- adjusting the brightness and control settings on the monitor itself to set values and
- creating a monitor profile, which defines the white point, gamma and RGB phosphor settings

Windows and Macintosh computers provide standard monitor profiles as part of the operating system software. In EFI XF you can select a monitor profile that you have created yourself or one provided with the operating system.

Copy

Choose this command to copy a selected user, workflow or output device to the clipboard.

Paste

Choose this command to insert a duplicate of a user, workflow or output device from the clipboard.

Delete

Choose this command to delete the selected user, workflow or output device.

System

This command enables you to make global settings to connect and disconnect users, workflows and output devices to and from a system workflow.

User

This command contains user-related settings which enable you to:

- Check which workflows a selected user is connected to
- Check if the selected user is online/offline
- Connect the selected user to all workflows



Users with no administrator rights cannot be connected to the EFI Linearization workflow.

- Disconnect a selected user from all workflows
- Create a new user
- Delete the selected user

Workflow

This command enables you to:

- View which users are connected to the selected workflow
- View which output device is connected to the selected workflow
- Set up a connection from user to workflow so that that user can load jobs in EFI XF
- Set up a connection to an output device so that jobs can be processed and printed
- Connect all users to the selected workflow
- Disconnect all users from the selected workflow
- Disconnect the output device from the workflow
- Create a new workflow
- Delete a selected workflow

Output Device

This command enables you to:

- View which workflows are connected to the selected output device
- Check if a selected output device is online/offline
- Connect all workflows to the selected output device
- Disconnect the selected output device from all workflows
- Create a new output device
- Delete a selected output device

4.1.3 System menu

Start Font Download

Choose this command to start downloading purchased fonts. To download such fonts, you are normally required to type the name of your printer. Refer to the documentation of your font downloader program for further information.



Please note that to download and use downloaded fonts, a valid dongle must be connected to your computer.

Stop Font Download

Choose this command to cancel font downloading.

Clean Up

Choose this command to delete files that are no longer needed. You can choose to delete output files, preview files, temporary files, files loaded in the job list and log files. Alternatively, select "All" to delete all.

4.1.4 Tools menu



The Tools menu contains the commands for starting the available add-on modules. The commands are visible only if you have a valid license for the corresponding module.

Open EFI LinTool

Choose this command to start EFI LinTool (default tool) – a tool for ensuring your printer's color consistency.

Job Explorer

Choose this command to switch to Job Explorer.

4.1.5 View menu

Show/Hide Property Inspector

Choose this command to show/hide the Property Inspector. This command has a toggle effect



This command can also be executed by clicking on the sash between layout area and Property Inspector.

4.1.6 ? menu (Windows)/Help menu (Macintosh)

Help

Choose this command to start the PDF online Help for EFI XF.

www.efi.com

Choose this command to access the EFI homepage.

E-mail to Support

Choose this command to send an e-mail direct to our Support team if you require help with your product.

EFI XF Server Information

Choose this command to open a window in which you can view

- which options (license files) are installed
- which updates are installed



This menu command is only enabled if Server and Client are installed on the same computer.

About

Choose this command to open a window with details of your program version.



In the Macintosh version of the software, you will find the command in the EFI XF Client menu.

4.2 Toolbar



New User

Click this button to add a new user.



New Workflow

Click this button to add a new workflow to the system workflow. New workflows are based on previously saved workflow templates.



New Output Device

Click this button to add a new printer.



Save

Click this button to save your settings.



Delete selected object

Click this button to delete a selected item.



Copy

Click this button to save a copy of a selected object to the clipboard.



Paste

Click this button to insert an object that you have previously copied to the clipboard using the command "Copy".



Open LinTool

Click this button to start EFI LinTool (default tool) — a tool for ensuring your printer's color consistency



Job Explorer

Click this button to switch to the program window "Job Explorer" where you load and process jobs.

4.3 Property Inspector

The Property Inspector displays the settings of a selected:

- user
- workflow or
- output device

All the settings you make in System Manager are made for a selected workflow and are applied to all jobs processed via that workflow. However, some job-specific settings are possible in Job Explorer, which override the settings made in this program window.

4.3.1 General bar

The “General” properties window is accessible from all areas of System Manager. It displays information about current system utilization and the job status of all jobs. It also displays the amount of used hard disk space on your computer.



The used disk space should not be allowed to exceed 95%; otherwise you will not be able to load and process print jobs in EFI XF.

4.3.2 User settings

The “User” bar is displayed when you select a user in the layout area.

Name

Use this edit box to type a name for a new user or change the name of an already defined user.

Password

Define a password. Please note that passwords are case-sensitive.



You may change the password of the default administrator if you wish. However, please note that if the default administrator is the only user with administrator rights and the password is misplaced, you will no longer be able to access the software to make settings at administrator level.

Description

Use this edit box to type a brief description, if required.

Authorization

Select whether the user will have administrator or user rights.

Users with administrative rights have access to System Manager and are permitted to create, set up and manage workflows.

Users with no administrative rights are only able to submit print jobs and make job-specific settings in Job Explorer.

The rights of all users can be extended to allow them to make job settings which affect color adjustment, color management and spot colors in Job Explorer.

4.3.3 Workflow settings

The “Workflow” bar is displayed when you select a workflow in the layout area.

4.3.3.1 Workflow bar

Workflow tab

Name

Type a name for a new workflow or change the name of an already defined workflow. It is not possible to change the name of the default linearization workflow.

Description

Use this edit box to type a brief description, if required.

Preview settings

Select a radio button to define whether or not you want to create a preview of your print jobs before job processing. If this setting is set to off, job-specific previews can be created in Job Explorer.

Resolution

Select a radio button to define the resolution of a displayed preview in dpi or pixel.

Source files

During job processing, EFI XF creates a copy of each source file and saves it to the JobFolder. Use the drop-down list box to choose when job files saved to this folder are automatically deleted. Files can be deleted:

- Never
- Automatically after printing
- After a specified number of days. Type the time span in days in the edit box.



Any setting you make for source file deletion is automatically applied to output/preview files. It is not possible to delete source files alone.

Delete source files from hotfolder

Select this check box to delete job files copied to a hotfolder.

Output/preview files

During job processing, EFI XF creates a print file of each job and saves it to the Server\Output folder. If the preview function is activated for the workflow, a preview file is also saved to the Server\Preview folder. Use the drop-down list box to choose when output and preview files saved to these folders are automatically deleted.

Files can be deleted:

- Never
- Automatically after printing
- After a specified number of days. Type the time span in days in the edit box.

If you have previously made a setting to delete source files, the same setting is automatically applied to output/preview files. An independent setting is only possible if you have specified that source files are never to be deleted.

Speed tab

High priority workflow

Select this check box to ensure that all jobs printed via this workflow go straight to the front of the print queue, i.e. if more than one workflow is printing to the same printer, all jobs received via a high-priority workflow will be output first.

Bi-directional, if supported by selected output device

If your printer supports this feature, select the check box to increase print speed. Bi-directional printing is faster than unidirectional printing, as the print head prints in both directions, but may provide less accurate results.



Please note that some settings in the linearization may be overwritten.

RIP and print on the fly

Select this check box if you want your jobs to start printing as soon as processing starts. If this check box is not selected, printing will not commence until job processing has been fully completed.



Please be aware that simultaneous processing and printing may cause the printer to pause from time to time. This can lead to undesirable lines on the printout.

RIP Resolution

Use the sidebar to define whether speed or quality is the more important factor during processing. By reducing the resolution at which the print job is processed you increase the speed of output.

Processing a print job at a low resolution may result in a draft-quality output, whereas printing at a high resolution setting will take longer.



Please note:

It is not possible to process a print job at a higher resolution than the output resolution.

If the Japanese font option is installed, the RIP resolution of PostScript-based files is restricted to 1200 dpi if you are using low-res fonts.

4.3.3.2 Input bar

Hotfolder tab

Hotfolder



To enable the settings on this tab, you must first set the workflow offline. To do so, click on the green arrow at workflow entry. Refer to the section “Managing system workflows” on page 5-6 for further information.

Define the folder that is routinely monitored by EFI XF for incoming files. When new files are detected, they are automatically loaded in EFI XF for processing.



A hotfolder is usually located in a network environment where it can be accessed by any number of users who want to print to EFI XF but who do not have the EFI XF Client installed on their computers.

If Server and Client are installed on the same computer, click “Choose” to navigate to the folder you wish to use as a hotfolder. A hotfolder can be located anywhere in the network. However, it is recommended that you use a subfolder of the EFI XF Server application folder. Refer to “EFI XF Server Configuration (Windows only)” on page 9-3 for further information.

If Server and Client are installed on different computers, you can only print to hotfolders located inside the JobFolder of the EFI XF Server application folder. Type the name of your chosen hotfolder in the edit box. If the folder does not already exist, a folder with that name will automatically be created in the JobFolder.

Use load balancing

If the selected hotfolder is being monitored by more than one workflow, you have to select this check box to instruct EFI XF to distribute the workload by diverting print jobs to the first idle workflow that becomes available.

This ensures that print jobs are always output as quickly as possible, e.g. if one workflow is busy processing a large-volume print job or if one Server encounters a problem. Once a job starts being processed, it is deleted from the hotfolder. This ensures that a print job cannot be processed by two workflows simultaneously.

Please note the following:

- Workflows printing via the same hotfolder may not necessarily be configured identically. This can result in unsatisfactory color results if the workflow settings are different or if a different printer is connected.
- This setting cannot be applied to print jobs in multi-file format, e.g. one-bit, DCS, Scitex, Tiff/IT or delta lists.

Enable AppleTalk Spooler

This option must be selected if you wish to print directly to EFI XF from a Macintosh application using the PPD provided on the software CD.



By default, this setting is dimmed on Windows XP computers because Windows XP does not support AppleTalk printing. However, if you need to print via AppleTalk from a Windows XP computer, a special EFI AppleTalk driver is provided with your product. You will find more detailed information in "Printing and monitoring print jobs" on page 7-1.

To set up printing via the PPD:

- AppleTalk must be installed on the Server computer
- a hotfolder must be defined

Refer to sections "Macintosh application printing to Windows Server" on page 7-14 and "Macintosh application printing to a Macintosh Server" on page 7-17 for further information.

AppleTalk Spooler Name

Define a name for the AppleTalk spooler.

Create Virtual Printer

This setting sets up a virtual printer for the workflow. It can be selected from the print dialog of any application and thus enables users to print directly to EFI XF.

To set up a virtual printer, you must first define a hotfolder on this tab. Then, select the check box and define a name for the virtual printer. This is the name that will be displayed in the printer list of the application.

The virtual printer is created when you switch the workflow online at workflow entry.

Refer to "Setting up the EFI XF Client" on page 7-13 for further information on printing via a virtual printer.

Remote tab

Use color management settings of remote job

Select this radio button if you are processing an EFI Remoteproof Container and wish to apply the color management settings from the JDF file. In this case, the color management settings defined for the workflow will be ignored.

Use color management settings of workflow

Select this radio button if you are processing an EFI Remoteproof Container and wish to apply the color management settings defined for the workflow. In this case, the color management settings saved to the JDF file of the EFI Remoteproof Container will be ignored.

PS/PDF tab

Use size out of crop box

Select this check box to instruct EFI XF to calculate the page size from the crop box. This is the recommended setting. If this setting is not selected, the page size information is extracted from the media box of the PDF file.

Calculate page size

Select this check box to instruct EFI XF to calculate the page size. This is done by RIPping the whole document at a low resolution. It is slower than extracting the information from the bounding box but produces more accurate results.

If this setting is not selected, the page size information is extracted from the bounding box of the PS or PDF file. This method is quick but may result in incorrect parameters for print jobs submitted from some applications.

Working Color Space

Here you can define a color mode for your input data. For example, if your PDF is composed mainly of RGB images, select "RGB". In this case, the RGB source profile selected on the "Color" tab is automatically applied to the entire PDF. Similarly, selecting "CMYK" as the working color space causes your PDF to be output using the selected CMYK source profile.

Font Checker

When you select this check box, job processing is halted if EFI XF detects a missing font. However, you can still preview jobs correctly.

If the check box is left unchecked, print jobs with non-available fonts are output using the default font Courier instead.

EPS Job Detection

This setting defines the time span during which EFI XF waits for incoming files that belong to a particular print job. Once this time span has elapsed, the software assumes that all files have been received and starts printing.

The default setting is five seconds. However, depending on the size and type of your print jobs, you may wish to change it. For example, for some large-volume separated jobs, a time span of sixty seconds may be needed to ensure that all the separations are received and processed as one print job. Alternatively, for an EPS composite file a setting of one second may well be sufficient to ensure that your print jobs are output as quickly as possible.

Simulate overprinting in composite jobs

Here you can determine whether overprint settings defined in your image file are applied during printing.

Normally, when two objects of different colors overlap, there is a knock-out effect, i.e. they will not print on top of each other. Intentionally printing one layer of ink on top of another is known as overprinting. Overprinting is sometimes used to prevent gaps between adjoining colors.

This setting lets you simulate overprinting in composite jobs. This would otherwise not be possible, since overprinting is not supported by composite jobs.

By selecting the check box and examining the preview, you can check the behavior of possible overprint settings in your file before printing.



This setting has no effect on print jobs with in-RIP separation or on separated job files.

TIFF/IT tab and Scitex CT/LW tab

Give priority to (TIFF/IT tab only)

- **TIFF/IT**

TIFF/IT files are composed of a CT (image data) and an LW (text data) file. If you select this radio button, EFI XF will wait until it detects both files before processing the job. This setting ensures that CT files are not processed on their own.

- **CMYK TIFF**

CMYK TIFF files are composed of one file only. If you select this radio button, EFI XF will start job processing as soon as it detects the file.

TIFF/IT files have final page
Scitex CT/LW jobs have final page

Select this check box if your files have a final page.



Many TIFF/IT and Scitex CT/LW files are automatically created with a final page. A final page is an additional file and contains information which ensures that the LW file and the CT file are clearly recognized as being part of the same print job.

The last ... characters differ from the file name

Select this check box if your TIFF/IT files or Scitex CT/LW files do not have a final page.

If no final page is available, EFI XF tries to match the files by their names. For example, if you have two files, "Doc4_CT.CT" and "Doc4_LW.LW", which belong to the same print job, EFI XF does not recognize this because of the different file names. However, if you instruct the software to ignore the last two characters before the dot, this reduces both file names to "Doc4_" and makes them immediately recognizable as one print job.

4.3.3.3 Layout bar

Page Layout tab

Page Layout

Select a scaling factor from the drop-down list box to define how your print job will be adapted to the size of media you are using. The following settings are available:

- Do not scale

With this setting, your image is printed in its original size. A warning will be displayed if it will not fit fully on the media.

- Fit to width

With this setting, your image is scaled horizontally so that the width of your image is adjusted to the printable width of the media.

However, this may mean that the height of your image is clipped. You can check the preview to see what effect this setting will have on the printed image and make sure that it will fit properly on the selected media size.

- Fit to page size

With this setting, your image is scaled so that either the height or the width of your image is adjusted to the printable height or width of the media.

- **Fit to height**

With this setting, your image is scaled vertically so that the height of your image is adjusted to the printable height of the media.

However, this may mean that the width of your image is clipped. You can check the preview to see what effect this setting will have on the printed image and make sure that it will fit properly on the selected media size.

- **Scale job percentually**

With this setting, you can define an enlargement or reduction factor for your image. A value of more than 100 increases the size of your image, whereas a value of less than 100 decreases the image size. It is possible to define different scaling factors for width and height. Please note that defining different factors for width and height will result in a distorted output of your image.

- **Scale job numerically**

With this setting, you can define a new height and width for your image. Please note that this setting allows you to alter width and height independently. Changing the proportions of your image in this way will result in a distorted output.

Rotate

Select whether you want to rotate your print job during printing. Choose from "Do not rotate", Rotate 90°, Rotate 180° or Rotate 270°. If you select "Minimal media consumption", EFI XF will automatically rotate your images, if necessary, to keep wastage to a minimum.

Align

Select an alignment setting from the drop-down list box to define how the printed image will be positioned on the media. The following settings are available:

- **Left**

Select this setting to print your image left-aligned on the printed sheet. In addition, you can define a left and/or top margin by activating the appropriate check box and typing the desired values.

- **Right**

Select this setting to print your image right-aligned on the printed sheet. In addition, you can define a right and/or top margin by activating the appropriate check box and typing the desired values.

- **Center horizontally**

Select this setting to center your image horizontally on the printed sheet. In addition, you can define a top margin by activating the appropriate check box and typing the desired value.

- **Center on page**

Select this setting to center your image horizontally and vertically on the printed sheet.

Invert

Select this check box to print an inverted image (color negative) of your print jobs.

Flip horizontally/vertically

Select these check boxes to print a horizontal or vertical mirror image of your print jobs.

Sheet tab

Sheet Size

Here you can choose to print your nestings or step & repeat files on any size of media supported by the selected printer. Select a default media size from the drop-down list box.

Alternatively, you can select "Custom" from the list and define a user-defined sheet size. To define a sheet size, type the required sheet dimensions in the appropriate edit boxes.

Nesting tab

Use automatic nesting

Select this check box to output all print jobs loaded via this workflow as part of a nesting. If this check box is not selected, the workflow is automatically set up for manual nesting.

In an automatic nesting workflow, all loaded jobs are grouped together and output as a single print job according to the settings made on this tab.

In a manual nesting workflow, you can compile your own nestings in Job Explorer.



Please note that automatic nesting and automatic step & repeat cannot be used simultaneously.

Setup

The settings available in this area enable you to define defaults to be applied to automatic and manual nestings alike. These settings can be changed by the user in Job Explorer, if required.



Please note: The setting "Allow rotation" cannot be undone. Rotated jobs are not returned to their original orientation if you deselect the check box and refresh the nesting preview in Job Explorer.

- Allow rotation

Select this check box to enable images to be automatically rotated in order to make better use of the available space.

- Optimization

Select a radio button to define whether images should be:

- Positioned to fill as much as possible of the available space on the media or
- Aligned so that they can be cut out using as few straight horizontal cuts as possible.
- Aligned so that they can be cut out using as few straight vertical cuts as possible.

Spacing between nesting elements

Use the edit boxes to define the vertical and horizontal gap between pages on the nesting.

Auto-Nesting Methods

The following settings apply only if automatic nesting has been selected.

- Always nest after

Select this check box and define a period of time after which EFI XF will automatically output a nesting of all loaded images.

This setting has priority over the other auto-nesting settings, e.g. a nesting will be printed after the set period even if the minimum percentage of the sheet or line has not been filled.

- Nest if a minimum of ...% of the sheet is filled

Select this radio button and define what percentage of the sheet must be filled before a nesting is output.

- Nest if a minimum of ...% of the line is filled

Select this radio button and define what percentage of the line must be filled before a nesting is output. This setting is useful if you are printing on a roll substrate.



It is possible to output nestings as tiles by defining a sheet size that is bigger than the media size set for the printer

Step & repeat tab

The step-and-repeat feature enables you to create multiple copies of a job and output as one print job.



Once the step-and-repeat function has been applied, it is not possible to make further changes to the original image. This is indicated by a lock icon. To make changes to the original image (e.g. scaling, rotation), you must first delete all the copies by clicking "Reset".



Use automatic step & repeat

Select this check box to print multiple images of a single print job according to the layout settings defined on this tab.



Please note that automatic nesting and automatic step & repeat cannot be used simultaneously.

The settings you make on this tab can be grouped together and saved in the form of a preset.

Initially, no presets are available. However, once you have made settings on this tab, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

Spacing

Use this setting to define the horizontal and vertical gap between images. The illustration shows horizontal and vertical spacing of 1 mm between images.

Step and Repeat Method

- Fill layout

Select this radio button to fill the selected sheet size.

- Fill rows and columns

With this setting you define the number of rows and columns to fill:

- Select the appropriate check boxes to fill as many rows or columns as will fit on the sheet size.
- To define a specific number of rows or columns, deselect the appropriate check box. Then use the edit box to type in the required number. The default setting is one row and one column, i.e. one image.

- Total number of copies

Select this radio button and define the number of copies you want to create.



It is possible to output step and repeat patterns as tiles by defining a sheet size that is bigger than the media size set for the printer

Marks tab

Edit marks for:

From the drop-down list box select "Sheet", "Page" or "Tile".

Sheet	Lets you print crop marks, control strip and job ticket for the size of the media loaded in the printer.
Page	Lets you print crop marks, control strip and job ticket for each page (document) on a sheet.
Tile	Lets you print crop marks around each tile.

Print crop marks

Use the drop-down list box to select the type of crop marks to be printed. Choose between Standard, Corner, Frame, Tombo, FOTOBA or i-cut (filled, reverse, ring).



Some of the following crop mark settings are not available for certain types of crop marks.

Distance to job

Use the edit box to define the gap between image and crop marks.

Line Thickness

Use the edit box to define the thickness of the crop marks.

Line Length

Use the edit box to define the length of the crop marks.

Job ticket/control strip



Control strips and job tickets cannot be output for tiles.

- Print job ticket

A job ticket contains information pertinent to the print job. It lets you know which settings were applied to achieve the print result, e.g. printer model, profiles, rendering intents, print resolution, scaling factor.

Select the appropriate check box to print out a job ticket with your print job. Then make your settings for job ticket setup to define which information is included in the job ticket.



Please note:

- Job tickets for nestings do not contain information about profiles, since these may vary for each image.
- The preview displays the default job ticket "EFI Print". However, the correct job ticket information can be seen on the printout.

- Print control strip

A control strip consists of one or more rows of different color patches which are used to obtain color values using a measuring device.

Select this check box to print out a control strip with your print job.

You can use one of the control strips provided with the software or a control strip of your choice. Control strip files must be saved to the following folder:

...\\Server\\ControlStrip. EFI XF can process all supported file formats except separated files; there is no size restriction.



EFI Print

BRMach2000

- Color management in control strip

Select this check box to apply color management to the control strip. It is recommended that you select this setting whenever you want to make color consistency checks.

- Position relative to each other

From the drop-down list box select the position of the control strip and job ticket relative to each other. Choose "Side by side" to align the job ticket with the left edge of the image and the control strip with the right. Choose "One above the other" to align both job ticket and control strip with the left edge of the image.

If there is too little room to display control strip and job ticket side by side, the control strip will overlap the job ticket.

- Job ticket setup

A job ticket can consist of up to five lines of text. Here you can define which information will be included in the job ticket. Select the required check boxes on each tab.

The fifth line of text has room for user-defined information.

4.3.3.4 Color bar

Color management tab

Use color management

Select this check box to make color-management settings and create color-accurate output. If color management is not activated, it is not possible to select any profiles.

Source (profile)

- CMYK/RGB/Gray/Multicolor

Click on the tab that represents the input color space of your print job and make the desired settings.

Select a source profile from the drop-down list box. For example, this can be:

- a source profile provided with EFI XF
- your own source profile supplied with your input device. Such profiles must be copied to the following folder: ...\\Server\\Profiles\\Reference, otherwise they cannot be detected by EFI XF.
- an embedded source profile



On the "Multicolor" tab, you can load a 6- or 7-color profile.

Selecting a source profile ensures that the color space used to create the original document is applied in EFI XF.



Please note:

- The source profiles you load must be in the correct color space for the selected tab, i.e. an RGB source profile can only be selected on the "RGB" tab.
- This setting has no effect on PDF jobs. Here, the embedded profiles are always applied and it is not possible to deselect them.
- For PostScript jobs, the following applies:
 - If no simulation profile is selected, the source profile is applied as the simulation profile.
 - If a simulation profile is selected, the source profile is ignored and has no effect.

- **Rendering Intent**

Select a rendering intent from the drop-down list box. Choose from the following:

- **Absolute colorimetric (paper white)**

This rendering intent leaves all colors that lie within the destination color gamut unchanged, thus maintaining color accuracy. If the destination color gamut is smaller than the source color gamut, it may mean that two distinct colors from the source color gamut are mapped to the same color in the destination color gamut.

This rendering intent is suitable for creating proofs with paper white simulation.



Paper white simulation means that the color of the reference paper is also simulated. For example, if you select the reference profile "ISOnewspaper26v4.icc" in combination with the rendering intent "Absolute colorimetric (paper white)", your image will be printed on a gray background to simulate the color of newsprint.

- **Perceptual**

This rendering intent preserves the visual relationship between colors in a way that is perceived natural to the human eye by compressing all colors and scaling them to fit into the available destination color space. Since all colors are affected, even those that would normally lie within the color gamut of the destination color space are compressed — even if they could normally be accurately reproduced.

This rendering intent is most suitable for printing photographic images, where having the largest possible color space is more important than a color-accurate print result. It is therefore not recommended for the output of color-accurate proofs.

- Saturated

This rendering intent aims to preserve vivid color at the expense of accurate color. The source color gamut is scaled to the destination color gamut, but preserves relative saturation instead of hue. This means that color hues may shift if the destination color space is smaller than the source color space.

This rendering intent is designed primarily for business graphics, where bright, saturated colors are more important than the exact relationship between colors (such as in a photographic image).

- Perceptual-absolute

This rendering intent was developed by EFI. It combines the advantages of the rendering intent "Perceptual", with regard to image definition in areas of shadow, with the color accuracy and paper white simulation of the rendering intent "Absolute colorimetric".

With this rendering intent, image data retains its definition in dark areas, i.e. shades of color are still visible in areas of shadow.

This rendering intent is particularly suitable for photographers who need to convert a large source color space (RGB) to a smaller destination color space (CMYK).

- Relative colorimetric (no paper white)

This rendering intent compares the white point of the source color space with that of the destination color space and adjusts all colors accordingly. All colors that lie within the color gamut of the destination color space are accurately reproduced. Any colors that lie outside the color gamut of the destination color space are replaced by the colorimetrically closest color that can be reproduced.

This rendering intent is suitable for creating proofs with no paper white simulation.

• Use embedded (source) profile, if available

Select this check box to enable object-oriented color management, i.e. in a print job comprising different images, each image will automatically be processed using the embedded profiles.



Any images without embedded profiles will be processed using the profiles selected in EFI XF. Please note that this may lead to color distortion.

Please note also that this setting can only be applied to:

- pixel-based source profiles, e.g. TIFF, JPEG. It is not suitable for PS files.
- PDF/X-3 simulation profiles

This feature gives you increased scope when determining the quality of your output. The following combinations of settings are possible:

Option	On/Off	Description
Use embedded source profile	On	Your file will be printed using all available embedded source or document profiles.
Use embedded simulation profile	On	
Use embedded source profile	On	Your file will be printed using the embedded source profiles and the simulation profiles selected in EFI XF.
Use embedded simulation profile	Off	
Use embedded source profile	Off	Your file will be printed using the embedded document profile. The embedded source profiles and the simulation profiles selected in EFI XF will be ignored.
Use embedded simulation profile	On	
Use embedded source profile	Off	Your file will be printed using the profiles selected in EFI XF. Any embedded profiles will be ignored.
Use embedded simulation profile	Off	

Simulation (profile)

- Profile

Select a simulation profile from the drop-down list box to simulate output on a particular printing press.

You can load a simulation profile provided with EFI XF or one supplied, for example, by your printing house.

To use your own simulation profile, copy the profile to the following folder: ...\\Server\\Profiles\\Reference.



EFI provides a number of additional customized profiles, which you may find useful. You will find these in subfolders of ...\\Server\\Profiles\\Reference\\Reference Additional. To use, copy to the folder ...\\Server\\Profiles\\Reference. Only profiles located in this folder can be selected in EFI XF.

- Rendering Intent

Select a rendering intent from the drop-down list box. You will find a description of the available rendering intents on page 4-20.

- Use embedded (simulation) profile, if available

Select this check box to enable object-oriented color management. Refer to the description earlier in this section for detailed information on how you can use embedded profiles to influence your color output.



Please note that this setting only has an effect on PostScript files.

Additional Settings

- L*a*b* optimization

If you have created an optimization file using Profile Optimizer (component of EFI Color Manager) you can select it from the drop-down list box. Optimization files provide more precise printer adjustment. They have the file extension .3cc and must be saved to the folder ...\\Server\\Profiles\\Balance.

- Visual correction

If you have modified your printer's color reproduction properties using EFI LinTool or EFI Color Manager, select the new linearization file from the drop-down list box. Visual correction files have the file extension .vcc and must be saved to the folder ...\\Server\\Profiles\\Balance. The effect of the applied .vcc file can be seen in the printout, but is not visible in the preview.

- Black Point Compensation

Select this check box if the black point of the source color space differs greatly from that of the target color space. When this option is selected, the full dynamic range of the source color space is mapped to the full dynamic range of the destination color space.

If the black point of the source color space is darker, contrast is lost during the conversion.

Activating black point compensation may cause gray shadows. However, this setting can be applied usefully to darker source black points.

Applying black point compensation may give more shadow detail and avoid gamut clipping if the darkest points of the source are darker than the proofing system is able to print. Differences in the black point are compensated for by introducing more deviation between target and proof shadow areas so, although the result will be visually better, the measured color values may not be as good.

- Use solid black

Select this check box to print any text or diagrams that have been defined as pure black with black ink only. In addition, you can define the percentage of black at which pure black ink will be used. Type the desired percentage in the edit box.

If the option "Use solid black" is not selected, black will be composed of the available CMYK inks.

4.3.3.5 Output bar

Copies

Type the number of copies you wish to print. If you are printing three copies of a three-page document, the pages will be output in the following order: 1, 1, 1, 2, 2, 2, 3, 3, 3.

If you prefer to output sorted copies, select the check box. In this case, the pages of your document will be output as follows: 1, 2, 3, 1, 2, 3, 1, 2, 3.

Crop image to fit media size

Here, you can define whether images, that are too big to fit on the selected media size, will be cropped during printing.

This is the default setting. If you deselect the check box, an appropriate error message is displayed if EFI XF ascertains that the image is too large. Processing is halted to allow you to make changes. You can overcome the problem, for example, by switching to a different media size, selecting a scaling factor on the "Page Layout" tab or outputting the image as a tiling.

Separtions settings

Select an option from the drop-down list box to determine how separated files will be output.

- Merge separations

Select this setting to combine all color separations and output as one printout.

- Color separations

Select this setting to output one printout for each color separation.

- Grayed separations

Select this setting to output one grayscale printout for each color separation.

Create EFI Remoteproof Container

With this setting EFI XF creates an EFI Remoteproof Container during file processing.

An EFI Remoteproof Container consists of a PDF or TIFF file (print file) and a JDF file (settings file). These are combined into a single file with the file extension RPF. An EFI Remoteproof Container contains all the information necessary to create an exact replica of the original file at a remote location.

RPF files can be loaded and processed in any EFI proofing software.

Export path

Use this setting to define a folder in which to save your EFI Remoteproof Containers.

If Server and Client are installed on the same computer, click "Choose" to navigate to the folder. An EFI Remoteproof Container can be located anywhere in the network. However, it is recommended that you use a subfolder of the EFI XF Server application folder.

If Server and Client are installed on different computers, you can only export to subfolders of the "Remote" folder. Type in the name of your chosen folder in the edit box. If the folder does not already exist, a folder with that name will automatically be created in the "Remote" folder.

Compression

Select a compression method from the drop-down list box. You can choose between:

- None

This method rules out the possibility of data loss when the file is extracted but, depending on the size of your image data, it may make it necessary to transfer large volumes of data.

- ZIP

This method compresses your data and enables it to be extracted in its original form without data loss.

- JPEG

This method compresses your data but some information may be lost when it is extracted. However, the losses are hardly visible. With this method you can define the degree of compression: Low, Normal or High.

Final run characteristics

These settings enable you to simulate print characteristics commonly found in different printing methods. You can choose between:

- Show missing dots up to

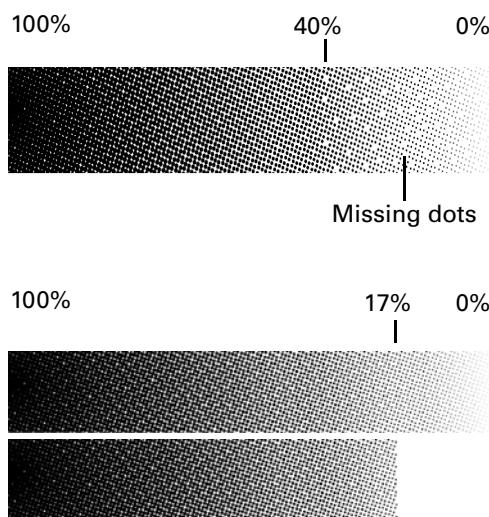
This setting simulates the effect that occurs in gravure printing when ink is not evenly transferred from the cylinder.

Use the sidebar to define the percent area coverage of missing dots.

- Define first printable dot

This setting simulates offset printing and enables you to define where the first printable dot will start.

Use the sidebar to define the percent area coverage for the first printable dot.



Example of an original halftone screen and a halftone screen with a first printable dot setting of 17%.



- Noise intensity

This setting produces an image which more closely resembles output on a printing press. It creates a less smooth effect than an inkjet printout.

Use the sidebar to define the required intensity of noise.

4.3.4 Output Device settings

The “Output Device” bar is displayed when you select an output device in the layout area.

Printer tab

Name

Type a name for a new output device or change the name of an already defined output device.



It is not possible to change the name of the linearization device.

Description

Type a brief description, if required.

Device type

Select your printer model from the drop-down list box.



Profiles are provided with your software and saved to the folder ...\\EFI\\EFI XF Profiles. If no profiles are located in this folder, an error message to this effect will be displayed when you select a device type and you will not be able to set up your printer.

Port tab

Print to system printer

Select this radio button to print to a printer that has already been set up as a system printer on the Server computer.



Please note: The system printer in this case must be a printer supported by EFI XF.

Print via network

Select this radio button to print to a network printer.

Type the IP address of the network printer in the edit box.



The printer's TCP/IP address may be a defined name or a series of numbers, e.g. 10.1.149.33. Ask your system administrator if you are not sure of your printer's TCP/IP address.

Click “Test” to check that a connection to the printer has been properly established. To test the connection, the printer must be switched on. If you receive an error message, consult your system administrator for advice.

Select the type of TCP/IP protocol that your printer uses for data transfer.

- **RAW on port**

Select this radio button if your printer supports RAW printing.



Most printers support RAW printing to port 9100. However, please note that this setting depends on the network settings made at the printer and may, therefore, be different.

- **LPR. The queue name is**

Select this radio button if your printer supports LPR printing. Then type the queue name in the edit box.



It is normally only necessary to type a queue name if you are printing via a Unix system or a print server with multiple interfaces. Therefore, in most cases, you can leave this edit box blank. Please refer to your printer manual for further information.

Print via Port

Select this radio button and choose the name of your printer from the drop-down list box to print to a printer that is connected via USB to the Server computer.



The printer must be switched on when you start EFI XF. Otherwise, it will not be automatically detected.

Quality tab

Media set

Select a previously defined combination of print settings from the drop-down list box.

To define a media set, make your settings on this tab and click "Save". A dialog opens in which you define a name for your combination of settings. Specify a name in the edit box and click "Save".

Ink type

Select the type of ink that is inserted in your printer.

Media name

Select the name of the media you will be printing on.

If you select a media type that is patched to a Device Link profile, EFI XF will indicate this.



A Device Link profile represents a fixed combination of printer and media type.

Device Link profiles can be created with EFI Color Manager. They must be patched to the EPL linearization file and a media profile using Profile Connector. This tool is available in EFI LinTool and EFI Color Manager.

Device Link profiles must be saved to the folder where the media profiles are saved. Otherwise they cannot be detected in EFI XF.

EFI Calibration Set

This area displays the epl base linearization which is patched to the selected media type. If more than one epl is available, you can select which one you want to use from the drop-down list box.

By clicking "Catalog" you can display a list of all the epl files available for the selected media type and view the printer conditions under which they were created.

Click "New" to open EFI LinTool/EFI Color Manager if you want to create a new base linearization.



The current printer settings will automatically be transferred to the linearization device. In other words, the default or previously made settings of the linearization device will be overwritten.

Media length correction

This feature lets you correct any inconsistency in the length of the printed image. This may occur as a result of the particular combination of printer and media that you are using.

Normally, job length and printed image length are the same. However, if you discover that your printed image is longer or shorter than it should be, you can adjust the output length.

The file Lineal_01.ps is provided in the "Samples" folder for this purpose. The printed image displays a set of ruler markings 0.5 m x 0.5 m. Print out the file and measure the length of the ruler markings. If the measurement is not accurate, you can compensate for the difference by typing the target length and the actual measured length in the appropriate edit boxes.



This setting is independent of the hardware setting available at the control panel of some printers.

Media tab

Source

Select the type of media feed, e.g. roll or single sheet. This setting is printer-dependent and varies according to the types of media feed and number of media trays installed for your particular printer.

Format

Select the size of the media inserted in the printer from the drop-down list box.

If your media size is not listed, you can define a user-defined format. Type the desired width and height in the edit boxes and click "Save". A dialog opens to let you define a name. When you close the dialog, your user-defined format is automatically selected.



EFI XF uses the default system of measurement set up in the operating system – centimeters, millimeters or inches. However, you may change this setting if you wish. Refer to "Edit menu" on page 4-2 for further details.

To delete, select a user-defined media format and click "Delete".



Please note that it is not possible to delete default media formats.

Special tab

This tab displays settings for printer-dependent features. For example, here you can make settings for:

- Output tray
- Duplex printing
- Autocut feature
- Media suction
- Printer dryer function
- Dry time definition
- Borderless printing



To achieve borderless printing you must also select the page layout setting "Fit to page size".

These features are only available if they are supported by your printer. Please refer to your printer manual for further information.

5 Creating and managing system workflows

This chapter describes how to assemble and set up a workflow in EFI XF.

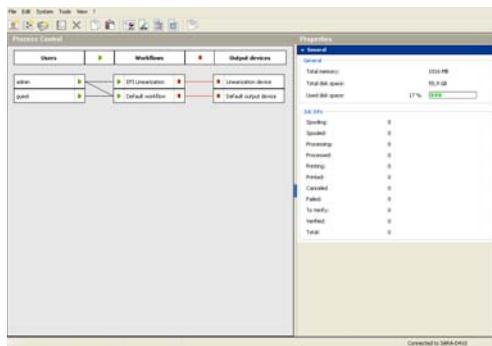
5.1 Default system workflows

After installing and licensing your software, the next step before you can start work is to set up and create workflows to suit your users' printing needs. You do this in the program window System Manager.

System Manager is displayed by default when you start EFI XF for the first time.



If System Manager is not displayed, choose "System Manager" from the "Tools" menu.



Upon installation, System Manager is set up with two default workflows.



This manual makes a distinction between the terms "system workflow" and "workflow".

The term "system workflow" consists of a user, workflow and output device. It refers to all work processes from file input by a certain user to file output on a specified printer.

The term "workflow" is concerned only with file processing and the way files are handled in EFI XF.

5.1.1 Default users

The default system workflows enable the users "admin" (default password "admin") and "guest" (default password "guest") to print immediately as soon as you have set up a connection to your printer.

Users logged on under the name "admin" are permitted to create, set up and manage system workflows in System Manager.

Users logged on under the name "guest" are permitted to print and manage their own print jobs in Job Explorer. They do not have access to System Manager and cannot create or modify system workflows.



The "guest" user enables infrequent users of EFI XF to log on quickly and easily, without first having to be defined as an individual user. As with all users, the "guest" user can be connected to as many workflows as required.

5.1.2 Default workflows

The default workflow is set up to output all print jobs in their original size and with color management applied. You can print immediately via this workflow as soon as you have set up a connection to your printer.

The default workflow "EFI Linearization" is used primarily in conjunction with EFI LinTool and EFI Color Manager for printer linearization and profile creation. Only users with administrator rights can print jobs via this workflow.

5.1.3 Default output devices

You can start printing via the default system workflows as soon as you have defined and configured the default output device.



The output device "Linearization Device" is used primarily in conjunction with EFI LinTool and EFI Color Manager to print out linearization charts.

Please note that you must configure the linearization device before you can access EFI LinTool or EFI Color Manager.

5.2 Configuring the default system workflows

To start printing via the default system workflows all you have to do is to set up the default output devices for your printer.



This section describes the procedure for setting up an output device. It does not, however, describe the individual settings in detail. If you refer further information on any one setting, please refer to "Output Device settings" on page 4-26.

To set up a default system workflow, proceed as follows:

1. In the layout area, highlight "Default output device". The property inspector displays the "Output Device" bar with the printer settings.
2. On the "Printer" tab, define a name for your printer and select your printer model from the drop-down list box.



You can also define a name for your printer in the layout area by double-clicking on the name "Default output device" and overwriting the default name and pressing <Enter>.

3. On the "Port" tab, make the required settings to set up a connection to your printer. You can print to a printer connected locally to the Server computer or to any printer in your network.
4. On the "Quality" tab, make the required settings for ink type and media.

When you have made your preferred settings on this tab, it is important that you save the media set. To do so, click "Save" and type a unique name in the dialog.

5. On the “Media” tab, define the source and format of the media loaded in the printer.



You can also create a customized media size on this tab. Refer to “Media tab” on page 4-29 for further information.

6. On the “Special” tab, make any additional printer-specific settings.
7. In the toolbar, click “Save”.
8. In the layout area, set the system workflow online. Refer to “Setting system workflows online” on page 5-5 for further information.

The users “admin” and “guest” can now print via the default system workflow.



All print jobs that you print via this workflow will be output in their original size and with color management applied.

To obtain your first printout, follow the instructions in “Printing and monitoring print jobs” on page 7-1.

5.3 Creating your own system workflows

The default system workflows enable you to get printing immediately after installing EFI XF. Normally, however, you will want to create your own system workflows to suit your users’ individual printing needs.

This section describes the steps necessary to create and set up a system workflow. It does not, however, explain each individual setting. If you require detailed information on any one setting, please refer to the appropriate section “Settings in System Manager” on page 4-1.

5.3.1 Creating users

To create new users, proceed as follows:

1. In the toolbar, click “New User”. A user with the name “New User 1” is created and the property inspector displays the “User” bar.



You can also create a new user

- by right-clicking on an existing user in the layout area and selecting “New User” from the context menu
- by choosing File > New > User

2. Type a name for the user.



You can also define a name for your user in the layout area. Double-click on the name “New User 1” and overwrite the default name. Then press <Enter>.

3. Define a password.
4. Give a brief user description, if required.

5. Select a radio button to define whether the user will have administrator or user rights.



Administrators have access to System Manager and are permitted to create, set up and manage workflows.

Users without administrative rights are only able to submit print jobs and make job-specific settings in Job Explorer.

6. Define whether the new user will be allowed to make job-specific settings for color adjustment, color management and spot colors.
7. In the toolbar, click "Save".

5.3.2 Creating workflows

In System Manager, you create workflows based on so-called workflow templates. Each workflow template can be loaded any number of times and saved under different names. This enables you, for example, to use the same workflow settings to print to different output devices, since each workflow can only be connected to one printer at a time.

To create a workflow, proceed as follows:

1. In the toolbar, click "New Workflow". The window "New Workflow from Template" opens.



You can also create a new workflow

- by right-clicking on an existing workflow in the layout area and selecting "New Workflow" from the context menu
- by choosing File > New > Workflow

2. Highlight the template "Default workflow" and click "Load". A new workflow with the name "Default workflow 1" is created. This workflow is pre-configured with the settings of the default workflow.



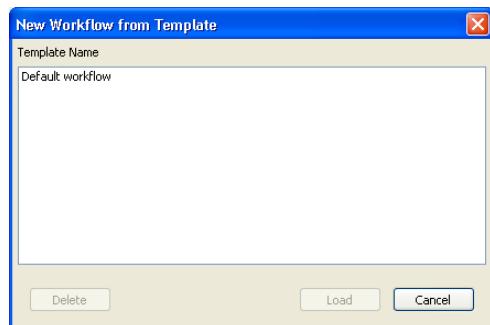
Initially only the default workflow is available as a template. However, once you have created your own workflows, you can save them as templates.

Workflow templates are saved with all the settings defined for the original workflow and serve as the basis for new workflows with similar properties.

3. Highlight the workflow "Default workflow 1".
4. In the Property Inspector, type a name for your workflow. Type a brief workflow description and define your preview and file deletion settings, if required.



You can also define a name for your workflow in the layout area. Double-click on the name "Default workflow 1" and overwrite the default name. Then press <Enter>.



5. Select the “Speed” tab and check the settings which affect the processing and print speed of your jobs. The default settings ensure that your jobs are output as quickly as possible. However, a better print quality can be achieved, for example, by printing unidirectionally.
6. In the toolbar, click “Save”.
7. Select each of the remaining bars and make your required settings. If need be, refer to the appropriate sections of “Settings in System Manager” on page 4-1 for detailed information on individual settings.
8. In the toolbar, click “Save”.



To save your newly created workflow as a basis for further workflows, select “Save as Template” from the “File” menu and define a name.

The next time you create a new workflow, it will be displayed in the window “New Workflow from Template”.

5.3.3 Creating output devices

To create new output devices, proceed as follows:

1. In the toolbar, click “New output device. An output device with the name “New Output Device 1” is created and the property inspector displays the “Output Device” bar.



You can also create a new output device

- by right-clicking on an existing output device in the layout area and selecting “New Output Device” from the context menu
- by choosing File > New > Output Device

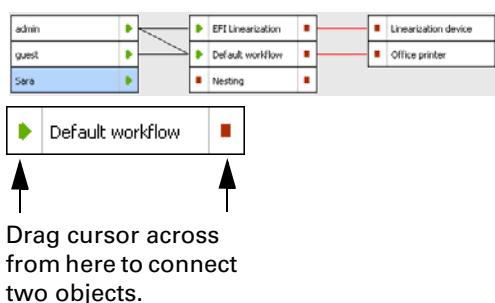
2. Follow the instructions in “Configuring the default system workflows” on page 5-2 to set up the new output device.

5.3.4 Setting system workflows online

When you have created and defined your users, workflows and output devices, the next step is to set the system workflow online.

1. Check that your system workflow is properly connected. Users, workflow and printer must be visibly joined by a thin black line.

To connect two objects, click object one (e.g. user) and drag the cursor across to object two (e.g. workflow). Make sure to drag the cursor from the margin area of an object. Dragging from the center rearranges the order in which your users, workflows or output devices are displayed.



- Check that your system workflow is online. An online workflow is indicated by green arrows. A red rectangle indicates that the workflow has been interrupted at a certain stage. To set an offline workflow online, click on the red rectangles.

When a workflow is fully online, all jobs are automatically processed and printed as soon as they are loaded in EFI XF. You are now ready to output your first print job. Refer to "Printing and monitoring print jobs" on page 7-1 for further information.

5.4 Managing system workflows

Occasionally, you may want to make alterations to a system workflow, e.g.:

- To add or delete a user
- To change workflow settings
- To connect to a different printer or service an output device

In order to make changes to a system workflow, you must first stop the workflow at the appropriate stage of job processing to prevent jobs from entering a workflow that is temporarily unavailable.

You can stop a system workflow:

- at the user (to prevent a user logging on)
- at workflow entry (to prevent automatic job detection, i.e. hotfolders are no longer monitored)
- at workflow exit (to prevent jobs from being processed by EFI XF. Stopping the workflow at this stage is the equivalent of loading an on-hold job)
- at the output device (to prevent jobs from being printed)

To stop a workflow, click on a green arrow in the workflow system. The green arrow changes into a red rectangle to indicate that the workflow has been interrupted.

Context menus are available for users, workflows and output devices which make it easy to manage your system workflows.

The following context menu commands are available for a selected user:

Connected Workflows

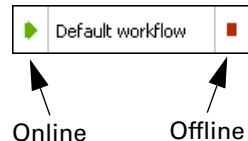
Choose this command and choose a workflow from the submenu to connect the user to a specific workflow.

User is online/offline

This command shows whether a selected user is logged on to EFI XF. In addition, you can use this command to connect or disconnect a user from his workflows.

Connect to All Workflows

Choose this command to connect the user to all available workflows.



Disconnect from All Workflows

Choose this command to disconnect the user from all workflows.

New User

Choose this command to add a new user.

Delete User

Choose this command to delete the user.

The following context menu commands are available for a selected workflow:

Connected Users

Choose a user from the submenu to connect him to the workflow.

Connected Output Device

Choose an output device from the submenu to connect the workflow to a specific output device. Each workflow can only be connected to one output device.

Workflow Accepts New Jobs

Choose this command to switch the workflow online so that jobs can be received from users. If a workflow is already online to users, this is indicated by a check mark.

Workflow Processes and Prints Jobs

Choose this command to switch the workflow online so that jobs can be submitted to an output device. If a workflow is online to an output device, this is indicated by a check mark. Reselecting this command sets the workflow offline.

Connect All Users to Workflow

Choose this command to connect all users to the workflow.

Disconnect All Users from Workflow

Choose this command to disconnect all users from the workflow.

Disconnect Output Device

Choose this command to disconnect the output device from the workflow.

New Workflow

Choose this command to select a workflow template and create a new workflow.

Delete Workflow

Choose this command to delete the workflow. The workflow must first be disconnected from all users and output devices.

The following context menu commands are available for a selected output device:

Connected Workflows

Choose a workflow from the submenu to connect it to the output device.

Device is Online

Choose this command to switch the output device online/offline. The output device must be online to output print jobs.

Connect Output Device to All Workflows

Choose this command to connect all available workflows to the output device.

Disconnect Output Device from All Workflows

Choose this command to disconnect all workflows from the output device.

New Output Device

Choose this command to add a new output device.

Delete output device

Choose this command to delete the output device. The output device must first be disconnected from all workflows.

5.5 Saving and restoring system workflows

Setting up workflows with exactly the right settings for your needs can be quite time-consuming. For this reason, EFI XF offers you the opportunity to save workflow settings in a single backup file. You can then restore the backup file should it be necessary at any time.

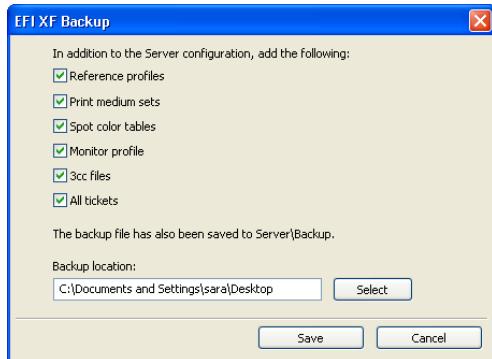
A backup file contains the system workflow settings (user, workflow, output device) including:

- Profiles (source, device link)
- Linearization files (visual correction, measured linearizations, plate compensation)

In addition, you can choose to save any of the following:

- Simulation profiles
- Media sets
- Spot color tables
- Monitor profile
- 3 cc optimization files
- All tickets (system, user, workflow, printer configuration, quality, workflow templates, job, media, plus presets for tiling, step and repeat and color adjustment)

To create a backup copy of your workflow settings, proceed as follows:



1. From the "File" menu, choose "Backup". The dialog EFI XF Backup" opens.
2. Select the check boxes of the items you wish to back up. All system workflow settings are automatically saved by default.
3. Define a backup location. Backup files are saved to two locations: the "Server/Backup" folder, which cannot be changed, and a freely definable destination, e.g. desktop. To define a different destination, click "Select" and browse to the required location.
4. Click "Save". The "Confirm" dialog opens when the backup has been successfully completed.
5. Click "OK" to complete the backup procedure.

To restore a backed up copy of your workflow settings, e.g. after reinstalling EFI XF, proceed as follows:

1. From the "File" menu, choose "Restore". The "Backup" window opens to display the backup files located in the "Server/Backup" folder.



Please note that if you restore system workflows after deleting and reinstalling EFI XF, this folder is empty.

In this case, click "Choose" and browse to the location of the second backup file. Unless defined otherwise during the backup procedure, you will find the second file on the desktop of your computer.

2. Select the backup file to be restored.
3. Click "OK". The "EFI XF Information" window opens when the restore has been successfully completed.
4. Click "OK". You need to restart the Server to view your restored system workflows.

6 Settings in Job Explorer

This chapter describes the user interface visible to all users of EFI XF. It explains the job-processing features available to you in your everyday work.

6.1 Menus

6.1.1 File Menu

Import job

Choose this command to load a job.

New Nesting

Choose this command to create a nesting of one or more loaded jobs.



By clicking "All Jobs" at the bottom of the Selector, you can create nestings from jobs loaded in different workflows.

Save

Choose this command to apply changes you have made to a job. If you do not choose this command, your job settings will not be saved and the job will be processed using the previous settings.

Print

Choose this command to save the current settings and start printing.

Cancel

Choose this command to cancel processing.

Login

Choose this command to display the "Login" dialog. This command enables you to log in under a different user name or to log on to a different Server.

Logoff and Exit

Choose this command to log off and exit EFI XF. The next time you start EFI XF the "Login" dialog opens.

Exit (Windows)/Quit EFI XF (Macintosh)

Choose this command to exit EFI XF. The next time you start EFI XF you will automatically be logged on with the same user data.



In the Macintosh version of the software, you will find the command in the EFI XF Client menu.

6.1.2 Edit menu



Most commands in this menu are also available if you right-click on an image in the preview window.

Select

Choose the command "All" to select all the pages of a nesting. Choose "Page below"/"Page above" to select the page that was inserted into the nesting immediately before/after the currently selected page. "None" deselects all selected pages.

Cut

Choose this command to unplace a selected page from a nesting. The page is saved to the clipboard and can be reinserted using the command "Paste".

Copy

Choose this command to copy a selected page from a nesting. The page is saved to the clipboard and can be copied as many times as required using the command "Paste".

Paste

Choose this command to insert a page that you have previously copied or removed from a nesting using the command "Copy" or "Cut".

Delete

Choose this command to delete a page from a nesting. You can also use this command to delete individual copies of an image. However, if you delete the original image, all copies will be deleted.

Create Preview

Choose this command to save the current settings, including those not displayed on the fly, and force a preview of an image. This is useful for workflows for which the setting "Create preview before RIPing" is not activated by default.

EFI XF provides an extensive range of key combinations with which to manipulate preview images. You will find a list of these shortcuts in "Keyboard shortcuts" on page 6-16.

Placed

Choose this command to place or unplace a page in a nesting. When unplaced, the page is removed from the nesting preview.

Locked

Choose this command to set a nested page at its current settings and position on the sheet. A locked page cannot be modified, nor can it be rearranged on the sheet.

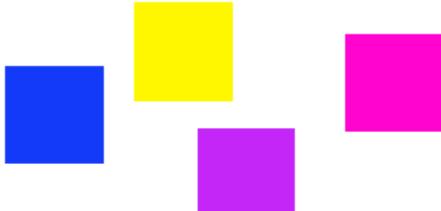
Remove from nesting

Choose this command to remove a job from a nesting. A separate job is created in the job list of the same workflow.

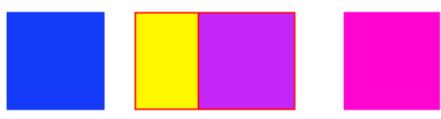
Order

Choose this command to alter the order of overlapping pages in a nesting. You can move a selected page to the front or back of the stack or move it up or down a level. This function can also be performed on multiple file selections.

To select multiple pages, hold down the **<Shift>** key.



Randomly positioned images



Aligned upper edges ...



... and horizontal centers distributed

Align

Choose this command to define an alignment for selected pages in a nesting. Pages can be aligned according to their upper, lower, left or right edges or according to their vertical or horizontal centers.

To select multiple pages simultaneously, hold down the **<Shift>** key.

Distribute

Choose this command to distribute selected pages on a nesting. Pages are rearranged evenly on the sheet so that their center points are equidistant from each other. You can distribute pages according to their top, bottom, left or right edges or according to their vertical or horizontal centers. This feature is primarily intended for use in conjunction with the align feature.

To select multiple pages simultaneously, hold down the **<Shift>** key.

Scale

Choose this command to enlarge or reduce the size of an image.

- No scaling

This setting returns a previously scaled image to its default size.

- Percentual

Select a scale factor from the submenu.

The applied scale factor is indicated by a check mark next to the appropriate setting.



You can also scale an image by:

- Selecting it in the preview window and dragging the mouse
- Using the transform tools (see page 6-12)

- Fit to

Choose "Sheet", "Sheet width" or "Sheet height" from the submenu.

Scaling to sheet size will enlarge the image to either the width or the height of the media. The image keeps its original proportions and scaling does not exceed the sheet format, i.e. no cropping takes place.

Scaling to sheet width or sheet height will scale the image to the width or height of the sheet respectively.



Be careful when scaling to sheet height or fitting to sheet if you are printing on a roll substrate. EFI XF calculates the image length based on a new roll of substrate (usually 15 m).

- Proportional

Choosing this command enables you to scale the width and height of an image proportionally. Select an image by one of the corner handles and drag the mouse until the required image size is reached.

Rotate

- Rotate 0, 90, 180 or 270 degrees

Choose this command to rotate an image by the selected angle.



You can also rotate a selected image by

- Moving the cursor next to (but not directly onto) one of the handles. The cursor form changes, enabling you to rotate the image as required. When you release the cursor, the image will automatically snap to the nearest 90 degree angle of rotation.

- Using the transform tools (see page 6-12)

- Flip horizontal

Select this command to create a mirror image by flipping a selected image on its vertical axis.



You can also flip an image using the transform tools (see page 6-12)

- Flip vertical

Select this command to create a mirror image by flipping a selected image on its horizontal axis.



You can also flip an image using the transform tools (see page 6-12)

Invert

Choose this command to invert, i.e. create a color negative of, a selected image. This command has a toggle effect and switches the image between positive and negative.



You can also flip an image using the transform tools (see page 6-12)

Reset page

Choose this command to return a selected image to its default settings.

Languages (Windows only)

Choose this command to change the language in which the user interface is displayed. You must restart the Client before the new language takes effect. By default, EFI XF is displayed in the language of the operating system.



- On a Macintosh, you can change the language via the international settings in "System Preferences".
- Please note that to display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports 2-byte fonts.

Measurement system

Choose this command to define which system of measurement is used in EFI XF. The default setting corresponds with the system of measurement set up in the operating system. However, you can choose between millimeter, centimeter, meter, inch and foot.

Monitor profile

EFI XF provides you with the opportunity to verify color accuracy on a computer screen. This is known as "soft proofing". However, much like the color output of each printer can vary greatly, so each monitor displays color slightly differently. To overcome this problem, it is important that the monitor is regularly calibrated to a certain standard. Monitor calibration consists of two steps:

- adjusting the brightness and control settings on the monitor itself to set values and
- creating a monitor profile, which defines the white point, gamma and RGB phosphor settings

Windows and Macintosh computers provide standard monitor profiles as part of the operating system software. In EFI XF you can select a monitor profile that you have created yourself or one provided with the operating system.

Copy to

Choose this command to copy a job from one workflow to another.

Move to

Choose this command to transfer a job from one workflow to another.

6.1.3 Nesting menu



The commands in this menu are also available if you right-click anywhere outside an image in the preview window.

New sheet

Choose this command to add a new sheet to an existing nesting.



A sheet is the physical size of the media you have defined either for the printer (Output Device > Media) or as a sheet (Layout > Sheet).

Delete sheet

Choose this command to delete a sheet from a nesting.



To delete the final sheet, select the command Edit > Delete.

Go to

Choose this command to scroll through a multi-sheet nesting. You can scroll backward and forward through individual sheets or proceed directly to the first or last sheet of a nesting.

Refresh

Choose this command to display a preview of a newly created nesting or to reorganize the pages of a nesting after you have made changes. This command corresponds to the button of the same name found on the "Nesting" tab of the "Layout" bar.

6.1.4 Tools menu



The Tools menu contains the commands for starting the available add-on modules.

These commands are visible only if you have a valid license for the corresponding module.

Open EFI LinTool

Choose this command to start EFI LinTool (default tool) – a tool for ensuring your printer's color consistency.

System Manager (users with administrative rights only)

Choose this command to switch to System Manager.

6.1.5 View menu

Zoom in

Choose this command to enlarge the size of the preview.

Zoom out

Choose this command to reduce the size of the preview.

Fit to

Choose this command to modify the preview view.

- Window

This setting scales the sheet so that it is completely visible in the preview window.

- Selection

This setting scales a selected image or page to the size of the preview window.

- Actual size

This setting scales the sheet and all inserted pages to their actual size.

Clear guides

Guides appear as non-printing lines and help you to layout pages on your nesting sheet. Choose this command to delete guides that you have previously placed.



You can also delete a guide by dragging it to the ruler. Drag horizontal guides to the horizontal ruler and vertical guides to the vertical ruler.

To place a guide, you must first display the rulers. From the "View" menu, choose "Visual aids" and select "Rulers" from the submenu.

To create a horizontal guide, hold down the mouse button on the horizontal ruler and drag to the desired position on the sheet. To create a vertical guide, drag from the vertical ruler. Please note that guides are not saved. When you exit EFI XF, all guides are automatically deleted.

To move a guide, move the cursor over the guide until the x or y coordinate appears. Then, hold down the mouse button and drag the guide to a new position. Please note that it is not possible to move locked guides.

Lock guides

Choose this command to lock guides in a fixed position.

Snap to

Choose this command to ensure precise image alignment. When this command is activated, guides, grid or objects receive a magnetic property which causes images in their proximity to snap to them.



When "snap to objects" is selected, the setting for "Spacing between nesting elements" is observed.

Visual aids

This command contains a number of sub-commands to help you layout your nesting.

- **Rulers**

Choose this command to show or hide the horizontal and vertical rulers. The unit of measurement used is defined on the "Edit" menu.

You can change the zero coordinates (0, 0) by pressing and holding down the left mouse button on the top left of the preview window (where the vertical and horizontal rulers intersect) and dragging the mouse to the required position.

To reset the zero coordinates, double-click on the intersection of the rulers in the top left corner of the preview window.

- **Guides**

Choose this command to show or hide the guides.

- **Grid**

The grid is a set of evenly spaced non-printing horizontal and vertical lines that helps you to layout pages on a sheet. Choose this command to show or hide the grid. The grid spacing is fixed, but adapts automatically according to the selected zoom factor.

- **Page frame**

Choose this command to draw a black frame around each page on the sheet. You may find this useful to see the page borders, e.g. to check if an object on a page has a lot of white space around it which may be overlapping other images.

- **Overlaps**

Choose this command to check if pages are overlapping. Overlapping pages are indicated by a red frame.

- **Sheet margins**

Choose this command to display the non-printable margins as defined by the printer's firmware.

- **All**

Choose this command to select all the visual aids on this menu in one step.

- **None**

Choose this command to deselect all the visual aids on this menu in one step.

Show/Hide Preview

Choose this command to show/hide the preview window. This command has a toggle effect.

Show/Hide Selector

Choose this command to show/hide the Selector. This command has a toggle effect.

Show/Hide Property Inspector

Choose this command to show/hide the Property Inspector. This command has a toggle effect.

Maximize preview

Choose this command to display an enlarged view of the preview window. Choose it again to revert to the default Job Explorer window.

6.1.6 ? menu (Windows)/Help menu (Macintosh)

Help

Choose this command to start the online Help for EFI XF.

www.efi.com

Choose this command to access the EFI homepage.

E-mail to Support

Choose this command to send an e-mail direct to our Support team if you require help with your product.

EFI XF Server Information

Choose this command to open a window in which you can view

- which options (license files) are installed
- which software versions (including updates) are installed



This menu command is only enabled if Server and Client are installed on the same computer.

About

Choose this command to open a window with details of your program version.



In the Macintosh version of the software, you will find the command in the EFI XF menu.

6.2 Context menus

Job Explorer has a number of context menus which provide shortcuts to some of the most commonly used menu commands. Refer to the appropriate menu description earlier in this chapter for further information.

Context menus become available when you right-click on:

- an image in the preview window. The commands are the same as those found in the "Edit" menu. See "Edit menu" on page 6-2 for further information.
- any area outside an image in the preview window. The commands are the same as those found in the "Nesting" menu. See "Nesting menu" on page 6-6 for further information.

- any object in the job list. The commands are as follows:

New nesting	See page 6-1
Add job to nesting	Choose this command to add a new job to an existing nesting.
Move from nesting	See page 6-2
Create preview	See page 6-2
Save	See page 6-1
Print	See page 6-1
Cancel	See page 6-1
Normal Priority	Choose this command to set a high-priority job to normal. In this case, the job will be output in the order in which it was received in the job list.
High Priority	Choose this command to send a selected job to the front of the print queue, i.e. if more than one job is printing to the same workflow, a high-priority job will be output before jobs with a lower priority. However, jobs already being processed will be completed first.
Copy to	See page 6-5
Move to	See page 6-5
Delete	Choose this command to delete a selected item.
Hide/Show Property Inspector	Choose this command to show/hide the Property Inspector. This command has a toggle effect.

6.3 Toolbars

6.3.1 First toolbar



Import Job

Click this button to load a job.



Create Nesting

Click this button to create a nesting of one or more loaded jobs.



Save

Click this button to save the current settings.



Print

Click this button to start printing.



Cancel Printing

Click this button to cancel printing.



Delete Job

Click this button to delete the selected job from the job list.



Move Job

Click this button to move the selected job from one workflow to another.



Copy Job

Click this button to copy the selected job to another workflow.



Open LinTool

Click this button to start EFI LinTool (default tool) — a tool for ensuring your printer's color consistency.



Transform Job

Click this button to display the transform tools. Refer to "Transform tools" on page 6-12 for further information.



Crop Job

Click this button to display the crop tools. Refer to "Crop tools" on page 6-13 for further information.



Zoom Job

Clicking this button activates the zoom function. Each time you click in the preview window, the displayed image is scaled by a factor of two.



Zoom tool

Select a predefined zoom factor from the drop-down list box.



System Manager (for users with administrative rights only)

Click this button to display the program window "System Manager" where you set up system workflows.

6.3.2 Second toolbar



Maximize Preview

Click this button to display an enlarged view of the preview window. Click it again to revert to the default Job Explorer window.



Add New Sheet

Click this button to add a new sheet to an existing nesting.



Delete Sheet

Click this button to delete a sheet from a nesting.



Lock

Click this button to fix a nested page at its current settings and position on the sheet. A locked page cannot be modified, nor can it be rearranged on the sheet.



Invert

Click this button to invert, i.e. create a negative of a selected image. This button has a toggle effect and switches the image between positive and negative.



Order

Click the arrow to the right of this button to alter the order of overlapping pages in a nesting. You can move a selected page to the front or back of the stack or move it up or down a level. This function can also be performed on multiple page selections.

To select multiple pages simultaneously, hold down the **<Shift>** key.



Align

Click the arrow to the right of this button to define an alignment for selected pages in a nesting. Pages can be aligned according to their upper, lower, left or right edges or according to their vertical or horizontal centers.

To select multiple pages simultaneously, hold down the **<Shift>** key.



Distribute

Click the arrow to the right of this button to distribute selected pages on a nesting. Pages are rearranged evenly on the sheet so that their center points are equidistant from each other. You can distribute pages according to their top, bottom, left or right edges or according to their vertical or horizontal centers. This feature is primarily intended for use in conjunction with the align feature.

To select multiple pages simultaneously, hold down the **<Shift>** key.

The remaining buttons on this toolbar vary according to whether the transform tool or the crop tool is selected.

6.3.2.1 Transform tools

If the transform tool is selected, the following buttons become available:



Position image

Use these edit boxes to position an image at precise coordinates. The defined coordinates refer to the top left corner of an image. If multiple pages are selected, the relative position of the pages to each other remains constant.



Width and height

Use these edit boxes to modify the width or height of an image. Enter the values using the system of measurement defined on the "Edit" menu. If multiple images are selected, the scaling is applied to the image that is nearest to the top left corner of the sheet. All other images are scaled in proportion.

To enter a scaling factor as a percentage, click the button "Scale percentually".



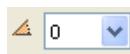
Scale proportionally

Click this button to ensure that the width and height of your images are scaled proportionally. If you modify the width of an image, the height will automatically change to maintain the original proportions.



Percentual

If you click this button, you can type in a scaling factor for width and height as a percentage.



Rotate

Select an angle of rotation from the drop-down list box. Angles of 0, 90, 180 and 270 degrees are possible.



Flip horizontally

Click this button to create a mirror image by flipping a selected image on its vertical axis.



Flip vertically

Click this button to create a mirror image by flipping a selected image on its horizontal axis.



Reset

Click this button to return an image to its original untransformed state.

6.3.2.2 Crop tools

If the crop tool is selected, the following buttons become available:



Crop left/right/top/bottom edge

Use these edit boxes to crop the top, bottom, left or right margins of an image. The crop tool enables you to define and output a specific area of an image, without printing the whole image.



Reset

Click this button to return an image to its original uncropped state.

6.3.3 Third toolbar



These buttons enable you to scroll forwards and backwards through a multi-page document or a multi-page nesting.

6.4 Property Inspector

The Property Inspector of Job Explorer displays the settings made for the workflow in System Manager. In addition, some job-specific settings are possible which override the corresponding workflow settings of the same name for that particular job.

Many of the settings are identical to the settings that have previously been defined for the workflow. Therefore, this section describes only the differences.

6.4.1 General bar

The “General” properties window contains job-specific information. A number of settings are also available which give you more control over the quality and type of your output.

Job tab

This tab displays the name of the selected file, together with details of the date the file was created and by whom.

It also contains information about the size of the original file (in centimeters or inches and dpi) and states whether the image file is composite or in-RIP separated.

In the case of multiple file jobs, the names of the individual files which go to make up the job are listed.

Furthermore, EFI XF displays warning messages, e.g. to let you know if a page will be cropped during printing.

If an error occurs during job processing, a message displays the cause of the problem.

Workflow tab

This tab displays the settings made for the workflow. No job-specific settings are possible.

Printer tab

This tab displays information about the output device. No job-specific settings are possible.

Server tab

This tab shows the amount of used hard disk space on your computer.



The used disk space should not be allowed to exceed 95%; otherwise you will not be able to load and process print jobs in EFI XF.

This tab also displays an overview of the status of all the jobs of the logged on user.

6.4.2 Input bar

Hotfolder tab

This tab displays the settings made for the workflow. No job-specific settings are possible.

Remote tab

This tab displays the settings made for the workflow. No job-specific settings are possible.

PS/PDF tab

This tab displays the settings made for the workflow. You can apply job-specific settings, if required. Refer to "PS/PDF tab" on page 4-11 for further information.

Tiff/IT tab and Scitex CT/LW tab

This tab displays the settings made for the workflow. No job-specific settings are possible.

6.4.3 Layout bar

Page layout tab

With the settings on this tab you can modify the appearance and layout of individual jobs on the page. Refer to "Page Layout tab" on page 4-13 for further information.

The settings "Fit to width" and "Fit to height" display the maximum possible printable width or height of the selected image. It is possible to alter these values to reduce the size of the image and print with wider margins, if required.

Sheet tab

The settings on this tab enable you to override the default media size set up for the workflow and print on a different format.

Nesting tab

This tab enables users with no administrator rights to define basic settings which affect media consumption, such as rotation and spacing between nesting objects.

All the settings made to nested pages on this tab must be "confirmed" by clicking on "Refresh". In addition to rearranging the pages in accordance with the new settings, the "Refresh" button also saves your changes.



Please note: The setting "Allow rotation" cannot be undone. Rotated jobs are not returned to their original orientation if you deselect the check box and refresh the nesting preview.

Step & repeat tab

The settings on this tab enable you to create multiple copies of a file and output as one print job. Refer to "Step & repeat tab" on page 4-16 for further information on the individual settings.

Please note that step and repeat can only be applied to single-page jobs.

Only original images can be selected and edited. Therefore, make sure that your image is scaled to the required size, etc. before performing step and repeat.

Once you have made your settings on this tab, click "Display" for the settings to take effect.

After stepping and repeating, the original image is marked with a lock icon to indicate that the image can no longer be edited. If you need to make changes, you must first click "Reset" to delete all current copies.

Marks tab

The settings on this tab enable you to choose job-specific crop marks, select a control strip and define a job ticket. See "Marks tab" on page 4-17 for further information.

6.4.4 Color bar

Color management tab

The “Color management” tab lets you activate or deactivate color management for individual print jobs. Here you select which profiles and rendering intents will be applied during printing and make settings for black reproduction.

The settings on the “Color management” tab are identical to the settings found in System Manager. Refer to “Color management tab” on page 4-19 for further information.

6.4.5 Output bar

Print tab

The settings on this tab are identical to the settings found in System Manager. Refer to “Output bar” on page 4-24 for further information.

However, in addition to the number of copies of a print job, you can also select a range of pages.

Select the radio button “All” to print all pages of a multi-page document. To print out only certain pages, select “Page/Sheet” and type in individual page numbers or a range of pages. For example, to print pages 2, 6, 10, 11, 12 and 13, type in 2,6,10-13.

Media tab

The settings on this tab are identical to the settings found in System Manager. Refer to “Media tab” on page 4-29 for further information.

In addition, all media sets defined for the selected printer are available for selection from the drop-down list box. Media sets are created for a specific combination of settings, e.g. for a particular type of media or for a certain type of ink. Refer to “Quality tab” on page 4-27 for further information.

Special tab

The settings on this tab are identical to the settings found in System Manager. Refer to “Special tab” on page 4-29 for further information.

6.5 Keyboard shortcuts

The following key combinations are available in Job Explorer. In the main, they correspond to the shortcuts that you will already be familiar with from popular graphics programs.

In the case of key combinations, many of the shortcuts that can be applied to individual images can also be applied to multiple job selections on a nesting.

6.5.1 Activating options

Function	Function key
Start Color Manager/ LinTool	<F2>
Start Color Verifier	<F3>
Start Color Editor	<F4>
Start Dot Creator	<F5>

6.5.2 Activating toolbars

Function	Function key
Transform toolbar	<T>
Crop toolbar	<C>
Edit tiling toolbar	<E>
Zoom toolbar	<Z>

6.5.3 General

Function	Key combination
Switch to System Manager/Job Explorer	<F6>
Show context menu for a selected page ("Edit" menu)	Right-mouse click on a page
Show context menu for a selected sheet ("Nesting" menu)	Right-mouse click on a sheet
Show context menu ("View" menu)	<Shift>+right-mouse click on a sheet
Select page	Click on page
Scale page(s) (Crop tool selected)	Click on page handle. Then press <Alt> and drag cursor.
Crop page(s) (Transform tool selected)	Click on page handle. Then press <Alt> and drag cursor.
Rotate page(s)	Click on page edge and drag image. Rotations snap automatically to 90°, 180°, 270° or 360°.
Move job to different workflow	<Alt>+<Ctrl>+<M>
Copy job to different workflow	<Alt>+<Ctrl>+<C>
Invert	<ul style="list-style-type: none">• <Ctrl>+<I>• <Apple>+<I>
Reset page	<ul style="list-style-type: none">• <Ctrl>+<Shift>+<R>• <Apple>+<Shift>+<R>

Function	Key combination
Maximize preview window	<ul style="list-style-type: none"> • <Ctrl>+<Shift>+<M> • <Apple>+<Shift>+<M>
Next page	<Ctrl>+<Page down>
Previous page	<Ctrl>+<Page up>
Go to first page	<ul style="list-style-type: none"> • <Ctrl>+<Home> • <Apple>+<Alt>+<Page down>
Go to last page	<ul style="list-style-type: none"> • <Ctrl>+<End> • <Apple>+<Alt>+<Page up>
Show/hide crosshairs for more precise page layout	<Tab>

6.5.4 Page position

Function	Key combination
Move page 0.5 mm on sheet	Arrow keys ($\leftarrow \uparrow \rightarrow \downarrow$)
Move page 10 mm on the sheet	<Shift>+arrow keys ($\leftarrow \uparrow \rightarrow \downarrow$)
Move sheet randomly	<Space bar>+drag mouse
Scroll sheet up/down	<ul style="list-style-type: none"> • <Page up>/<Page down> • Scroll wheel up/down
Scroll sheet left/right	<ul style="list-style-type: none"> • <Shift>+<Page up>/<Page down> • <Ctrl>+Scroll wheel up/down
Scroll to top/bottom of sheet	<Home>/<End>
Scroll to left/right edge of sheet	<Shift>+<Home>/<End>

6.5.5 Nesting jobs

Function	Key combination
Select all jobs	<ul style="list-style-type: none"> • <Ctrl>+<A> • <Apple>+<A>
Add page to selection	<Shift>+click on page
Select jobs in a cropped area	Mouse click and drag lasso
Remove page from selection	<Shift>+click on page
Move selected pages	Drag cursor
Remove selected page(s) and copy to clipboard (unplace page)	<ul style="list-style-type: none"> • <Ctrl>+<X> • Apple+<X>
Delete selected page(s)	<Ctrl>+<Backspace>

Function	Key combination
Copy selected page(s)	<ul style="list-style-type: none"> • <Ctrl>+<C> • <Apple>+<C>
Paste selected page(s) from the clipboard	<ul style="list-style-type: none"> • <Ctrl>+<V> • <Apple>+<V>
Refresh nesting	<ul style="list-style-type: none"> • <Ctrl>+<Alt>+<R> • <Apple><Alt>+<R>
Add sheet	<ul style="list-style-type: none"> • <Ctrl>+<Alt>+<+> • <Apple><Alt>+<+>
Lock page	<ul style="list-style-type: none"> • <Ctrl>+<L> • <Apple>+<L>
Unlock page	<ul style="list-style-type: none"> • <Ctrl>+<Alt>+<L> • <Apple>+<Alt>+<L>

6.5.6 Zoom

Function	Key combination
Zoom in/out	<ul style="list-style-type: none"> • <Ctrl>+<+>/<-> • <Apple>+<+>/<-> • <Alt>+Scroll wheel
Fit sheet to window	<ul style="list-style-type: none"> • <Ctrl>+<0> • <Apple>+>0>
Fit to actual size	<ul style="list-style-type: none"> • <Ctrl>+<Alt>+<0> • <Apple>+<Alt>+<0>
Fit selection to window	<ul style="list-style-type: none"> • <Ctrl>+<F> • <Apple>+<F>
Fit selection to window and zoom out one step	<ul style="list-style-type: none"> • <Ctrl>+<Alt>+<F> • <Apple>+<Alt>+<F>
Zoom in two steps	<ul style="list-style-type: none"> • <Ctrl>+<Space bar>+mouse click • <Apple>+<Space bar>+mouse click
Zoom out two steps	<Alt>+<Space bar>+mouse click
Zoom into selected area	<ul style="list-style-type: none"> • <Ctrl>+drag lasso • <Apple>+drag lasso

6.5.7 Rulers, guides and grid

Function	Key combination
Show/hide ruler	<ul style="list-style-type: none">• <Ctrl>+<R>• <Apple>+<R>
Set ruler to new zero coordinates	Drag cursor from top left corner of preview window (where vertical and horizontal rulers intersect)
Return ruler to default zero coordinates	Double-click in top left corner of preview window (where vertical and horizontal rulers intersect)
Create guide	Drag cursor from ruler
Re-position guide	Select and drag guide to new position
Delete guide	Drag guide and release in ruler (unlocked guides only)
Show/hide guides	<ul style="list-style-type: none">• <Ctrl>+<;>• <Apple>+<;>
Lock/unlock guides	<ul style="list-style-type: none">• <Ctrl>+<Alt>+<;>• <Apple>+<Alt>+<;>
Show/hide grid	<ul style="list-style-type: none">• <Ctrl>+<“>• <Apple>+<“>
Override snap to	<Shift>+drag cursor

7 Printing and monitoring print jobs

This chapter describes the different methods of how to print and manage your print jobs in EFI XF.



Please note that if the EFI XF Server computer has too little available hard disk space, you will not be able to load and process print jobs in EFI XF.

If problems arise, please check the amount of available hard disk space. Refer to section "Server tab" on page 6-14 for further information.

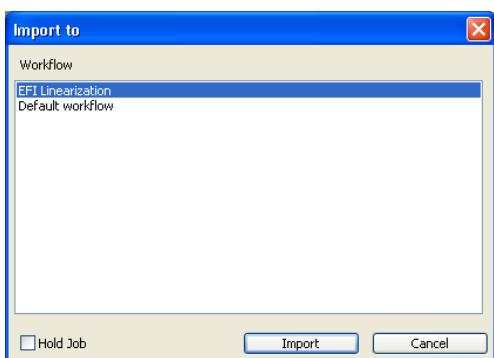
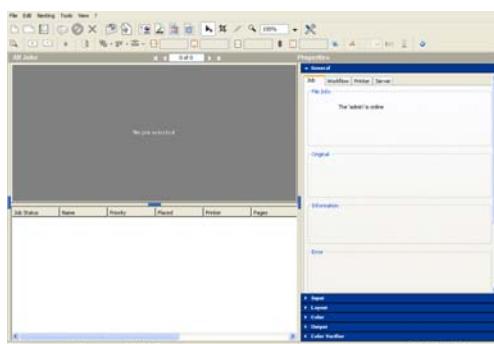
EFI XF will accept files in the following formats: PostScript, PDF, TIFF, JPEG, JPEG2000, EPS, Delta Lists, Scitex CT/LW, TIFF/IT, DCS, RPF and PSD.

7.1 Printing directly from EFI XF

Once a system workflow has been set up, you can print your first job. This section leads you step by step through a practical example of how to obtain your first printout.

Proceed as follows:

1. Make sure that a media is loaded in the printer.
2. Start EFI XF and display Job Explorer.
3. Load a job using one of the following methods:
 - Click "Import Job".
 - Select File > Import Job.
 - Right-click the mouse button in the job list and choose "Import Job" from the context menu.
 - Use the drag-and-drop function to release a file directly in the job list area.



A dialog opens.

4. Select a workflow from the list and activate the check box "Hold Job". This means that your job is loaded but not automatically processed in EFI XF. This gives you an opportunity to make job-specific settings before output, if required.



If your job can be processed and output exactly according to the workflow settings, leave the check box "Hold Job" unchecked. In this case, your job will be output as soon as it is loaded in EFI XF.

5. Click "Import". Your job is loaded in EFI XF.



Alternatively, files can also be copied into a defined hotfolder. In this case, the print jobs are automatically loaded in the assigned workflow.

Please note that the loaded jobs are immediately processed according to the workflow settings. If you want to make job-specific settings you must either cancel job processing or wait until after processing has been completed before making changes.

6. Select your job in the job list.

Depending on the workflow settings, an image preview may or may not be created and displayed.

7. Make any required job-specific settings in the Property Inspector. Many of the settings have already been defined for the workflow by the Administrator and cannot be modified. However, certain settings are available.



If you require detailed information on any one setting, please refer to the appropriate section of "Settings in System Manager" on page 4-1.

8. To print your job use one of the following methods:

- Click "Print".
- Select File > Print.
- Right-click the mouse button in the job list and choose "Print" from the context menu.

7.2 Printing via Job Monitor

Job Monitor provides users with an easy way to submit print jobs to EFI XF from any computer that does not have Client software installed.

Job Monitor is a tool used to manage print jobs. It can be installed on an unlimited number of computers and does not require a license.

The displayed information is user-dependent, users see only the workflows to which they have access. However, users with administrative rights can view and manage print jobs of other users printing to the same workflows. Users with user rights only can only see and manage their own jobs.

In Job Monitor you can:

- View all print jobs for all your workflows at once
- View your print jobs according to workflow, status or printer
- Add print jobs to workflows
- Cancel and delete your own print jobs

To launch EFI Job Monitor, double-click the EFI XF Job Monitor icon. On Windows computers, this is located on the desktop. On Macintosh computers you will find the icon in the Dock.



7.2.1 Menus

7.2.1.1 EFI XF Job Monitor menu (Macintosh only)

About

Choose this command to open a window with details of your program version.

7.2.1.2 Jobs menu

Import Job

Choose this command to load a print job in Job Monitor.

Print

Choose this command to start printing a selected print job.

Cancel Printing

Choose this command to cancel printing of a selected print job.

Delete Job

Choose this command to delete a print job.

Login

Choose this command to display the "Login" dialog. This command enables you to log in under a different user name or to log on to a different Server.

Logoff and Exit

Choose this command to log off and exit EFI XF. The next time you start EFI XF the "Login" dialog opens.

Exit (Windows)/Quit EFI Job Monitor XF (Macintosh)

Choose this command to exit Job Monitor. The next time you start EFI XF you will automatically be logged on with the same user data.



In the Macintosh version of the software, you will find the command in the EFI Job Monitor XF menu.

7.2.1.3 Edit menu (Windows only)

Languages

Choose this command to change the language in which the user interface is displayed. You must restart Job Monitor before the new language takes effect. By default, EFI XF is displayed in the language of the operating system.



- On a Macintosh, you can change the language via the international settings in "System Preferences".
- Please note that to display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports 2-byte fonts.

7.2.1.4 List menu

View

Choose this command to expand or collapse the Job Monitor window. In a collapsed state, only the available workflows are displayed in the Selector area. In an expanded state, the job list is also visible.

7.2.2 Printing

To print jobs with Job Monitor, proceed as follows:

1. Make sure that a media is loaded in the printer.
2. Double-click the program icon to open the “Job Monitor” dialog. On Windows computers, this is located on the desktop. On Macintosh computers you will find the icon in the Dock.

The login window opens



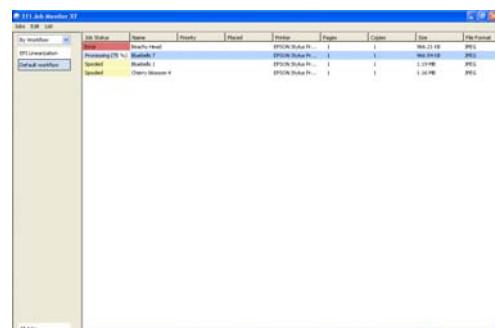
3. Log in with your user name and password.
4. Type the IP address of the Server computer.

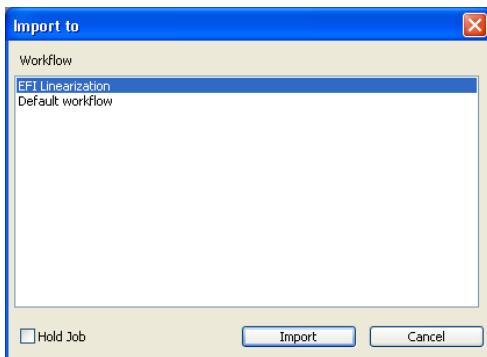


Ask your system administrator if you are not sure of the TCP/IP address.

The Job Monitor window opens.

5. Highlight a workflow in the Selector area.
6. Load a job using one of the following methods:
 - Select Jobs > Import Job and navigate to your file.
 - Use the drag-and-drop function to release a file directly in the job list area.





A dialog opens.



If you load a job without previously selecting a workflow in the Selector area (e.g. if all print jobs or only those for a particular printer or with a certain status are displayed), a dialog opens with a list of available workflows. Select a workflow from the list and click "Import".

Please note that if you activate the check box "Hold Job" your jobs will be loaded in EFI XF but will not be processed. Job processing must be started manually.

Your job is processed according to the workflow settings and output on the printer.

7.3 Printing via a hotfolder

A hotfolder enables users, who do not have EFI XF installed on their computers, to copy print jobs to a centrally located folder on the network.

All jobs placed in the hotfolder are loaded and processed in EFI XF according to the settings for the particular workflow.

To create a hotfolder, proceed as follows:

1. In System Manager, select a workflow.
2. Set the workflow offline by clicking on the green arrows at workflow entry and exit.
3. On the "Input" bar, select the "Hotfolder" tab and define a hotfolder. Refer to "Hotfolder" on page 4-9 if you require further information.

To print via a hotfolder, you can:

- copy print jobs manually into a hotfolder or
- set up a hotfolder as a virtual printer. This enables you to submit jobs directly from an application. Refer to "OS settings" on page 7-14 for further information.



Please note that loaded jobs are immediately processed according to the workflow settings. If you want to make job-specific settings you must either cancel job processing or wait until after processing has been completed before making changes.

7.4 Printing with Unidriver

The Unidriver printer driver enables you to print directly to EFI XF workflows from any application.

Unidriver can be installed as often as required on any Windows or Macintosh OS X computer located in a network environment. Each installation is set up for a specific EFI XF Server and allows one named user to print to his or her workflows.

Although it is easy to alter the user/server settings, you may find it more convenient to install additional versions of the Unidriver on one computer, e.g. to enable:

- the same user to send print jobs to a different Server version of EFI XF.
- print jobs to be sent automatically to a specific workflow



If you try and set up two printers with the same name, EFI XF will automatically add a consecutive number to the name.

7.4.1 Windows

7.4.1.1 Installing Unidriver for Windows

You will find the Unidriver application:

- on the software CD in the folder “Tools and Other”
- on the Server computer in the folder “EFI\Tools”

To install Unidriver, proceed as follows:

1. Copy the contents of the appropriate folder (PC or Mac) to the computer on which the application is installed.
2. Double-click on the file “Unidriver.exe” and extract the contents to a chosen location on your computer. The setup procedure starts automatically.



If the setup does not start automatically, open the Unidriver folder and then the subfolder Driver_Installer and double-click on the application file “setup.exe”. The “EFI XF 3.1 Unidriver Setup” window opens.

3. Click “Next” and follow the on-screen instructions until the window “Name Your PS Printer” opens.
4. Type a name for the EFI XF printer.



It is advisable to use a name that can be easily identified when selecting Unidriver in the print command of the application.

5. Click “Next” and continue to follow the on-screen instructions.
6. Click “Finish” to complete the installation.

7.4.1.2 Logging on to EFI XF

Before you can print from an application, you must first log on to EFI XF in Unidriver. To do so, proceed as follows:

1. Windows 2003:

Select Start > Settings > Printers. Then, right-click the EFI XF printer and select “Printing Preferences” from the context menu.

Windows XP:

Select Start > Printers & Faxes. Then, right-click the EFI XF printer and select “Printing Preferences” from the context menu.

A message informs you that you need to enter the server login information in Setup.

This message appears because the printer driver is not yet logged on to EFI XF. To log on with your user data, continue with the following steps.

2. Click “OK” to open the “EFI XF Printing Preferences” window. The “EFI XF” window is displayed. It consists of five blue bars.

3. Click the “Setup” bar and type the IP address of the Server computer. Then type a user name and password (as defined in EFI XF).



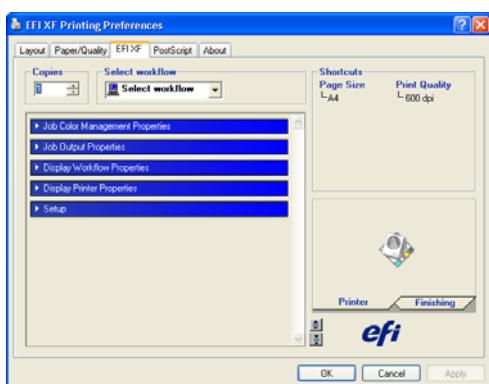
You must set up a connection to EFI XF in order to access your workflows. Otherwise, it is not possible to print.

4. Click “Apply” to log on with your user data.

5. Click “OK” and close all windows.

It is important that you access Unidriver as described above in order to log on to EFI XF. All other printer settings can be made by opening the Unidriver window directly from the application, as described in the following section.

If you would like to predefine a workflow for Unidriver, open the “EFI XF Printing Preferences” window again and select a workflow from the pull-down menu.



7.4.1.3 Printing



It is advisable to make all required workflow settings in EFI XF.

To open Unidriver from any Windows application, proceed as follows:

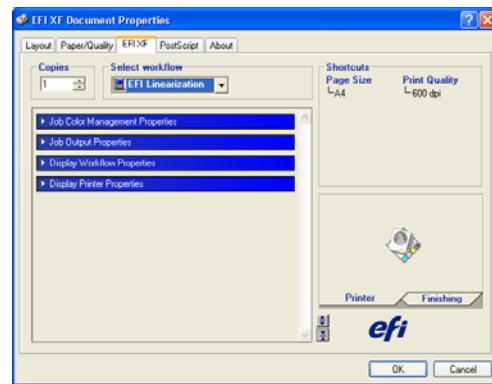
1. In the application, select the print command. Then select the EFI XF printer from the drop-down list box and click "Properties", "Printing Preferences" or similar, depending on which application you are printing from.

The "EFI XF Document Properties" window opens.



If an error message informs you that you need to enter the server login information in Setup, click "OK" and follow the steps in the previous section to log on to EFI XF.

2. From the drop-down list box, select the workflow. If required, you can check the settings made for the workflow by clicking in turn on each of the blue bars.
3. Click "OK" to exit Unidriver and start printing.



7.4.1.4 Making changes to the Unidriver setup

If you need to make changes to the printer driver setup at any time, proceed as follows:

Windows 2003:

Select Start > Settings > Printers. Then, right-click the EFI XF printer and select "Properties" from the context menu. The window "EFI XF Properties" opens, in which you can make your desired changes.

Windows XP:

Select Start > Printers & Faxes. Then, right-click the EFI XF printer and select "Properties" from the context menu. The window "EFI XF Properties" opens, in which you can make your desired changes.

7.4.2 Macintosh

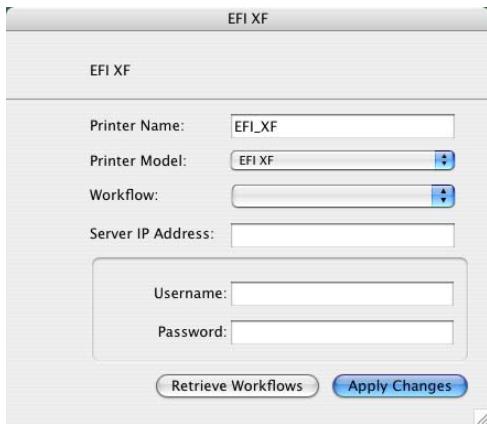
7.4.2.1 Installing Unidriver for Macintosh

You will find the Unidriver application:

- on the software CD in the folder "Tools and Other"
- on the Server computer in the folder "EFI\Tools"

To install Unidriver, proceed as follows:

1. Copy the contents of the appropriate folder (PC or Mac) to the computer on which the application is installed.
2. Double-click on the application file "EFI XF Unidriver" and follow the on-screen instructions until the window "EFI XF" opens.



3. Type a name for the EFI XF printer.



It is advisable to use a name that can be easily identified when selecting a printer in the print command of the application.

4. Type the IP address of the server computer. Then type the user name and password (as defined in EFI XF).



You must set up a connection to EFI XF in order to access your workflows. Otherwise, it will not be possible to print.

5. Click "Retrieve Workflows" to add the EFI XF workflows to which you have access to the drop-down list box "Workflow".
6. Click "Apply Changes" to log on with your user data and close the window.
7. Click "Quit" to complete the installation or click "Continue" to repeat the installation for additional users or servers.

7.4.2.2 Printing



It is advisable to make all required workflow settings in EFI XF.

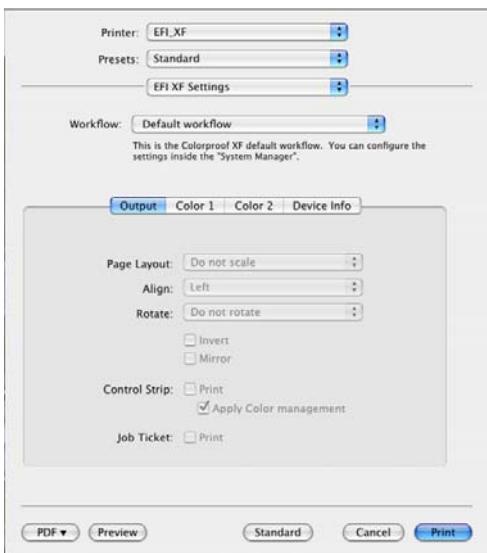
To open Unidriver from any Macintosh OS X application, proceed as follows:

1. In the application, select the print command. From the pop-up menu "Printer", select the EFI_XF printer. Then click "Advanced".



This button may or may not be available, depending on which application you are printing from.

2. From the pop-up menu, select "EFI XF Settings". The Unidriver window opens.
3. From the pop-up menu "Workflow", select the EFI XF workflow to which you want to print. If required, you can check the settings made for the workflow by clicking in turn on each of the four tabs.
4. Click "Print" to exit Unidriver and start printing.



7.4.2.3 Making changes to the Unidriver setup

If you need to make changes to the printer driver setup at any time, proceed as follows:

Mac OS 10.4.x:

In the Printer Setup Utility, select the “Printing” tab and highlight the EFI XF printer in the printer list. Then click “Print Queue” to open the print dialog. In the toolbar, click “Utility”. The EFI XF Setup dialog opens, in which you can make your desired changes.

Mac OS 10.3.x:

In the Printer Setup Utility, highlight the EFI XF printer in the printer list. In the toolbar, click “Utility”. The EFI XF Setup dialog opens, in which you can make your desired changes.

7.5 Setting up a virtual printer

This section describes how to set up an EFI XF workflow as a virtual printer to enable you to submit print jobs directly from any application.

7.5.1 Installed protocol drivers

Whether or not a virtual printer is visible in the network is controlled by protocol drivers. If no protocol driver is installed, it may not be possible for the Server computer to communicate with the computer on which the application is installed. Different protocol drivers are available for this purpose.

The table below illustrates which protocol drivers are supported by which operating systems.

Protocol drivers supported by operating system	Windows 2003/2000	Windows XP	Macintosh OS X
AppleTalk	Yes*	Yes	No
TCP/IP	Yes*	Yes*	Yes
SMB	Yes	Yes	No
EFI AppleTalk spooler	No	Yes	Yes

* The Windows service needs to be installed.

The following tables show whether the virtual printer will be available to the user depending on which protocol driver is installed.

Installed operating system	Printing to		
Windows XP	Windows 2003/2000	Windows XP	Macintosh OS X
AppleTalk	No	No	No
TCP/IP	Yes	Yes	Yes
SMB	Yes	Yes	No
EFI AppleTalk spooler	No	No	No

Installed operating system	Printing to		
Windows 2003/2000	Windows 2003/2000	Windows XP	Macintosh OS X
AppleTalk	Yes	No	No
TCP/IP	Yes	Yes	Yes
SMB	Yes	Yes	No
EFI AppleTalk spooler	No	Yes	Yes

Installed operating system	Printing to		
Macintosh OS X	Windows 2003/2000	Windows XP	Macintosh OS X
AppleTalk	Yes	Yes	No
TCP/IP	Yes	Yes	Yes
SMB	Yes	Yes	No
EFI AppleTalk spooler	No	Yes	Yes

Installed operating system	Printing to		
	Windows 2003/2000	Windows XP	Macintosh OS X
Macintosh OS 9			
AppleTalk	Yes	Yes	No
TCP/IP	No	No	No
SMB	No	No	No
EFI AppleTalk spooler	No	No	Yes

7.5.1.1 Setting up AppleTalk for Windows XP

An EFI AppleTalk driver is provided for users of Windows XP Professional and Windows XP Home operating systems.

To enable a Macintosh computer and a Windows XP Server computer to communicate via AppleTalk, the EFI AppleTalk driver must first be installed as a protocol on the Windows XP computer. The EFI AppleTalk driver supports all Apple Macintosh OS up to Mac OS 9 and all versions of Mac OS X.

To install the AppleTalk driver, proceed as follows:

1. From Control Panel, double-click "Network connections". Then, right-click the LAN or high-speed Internet connection and select "Properties" from the context menu to open the "Local Area Connection Properties" window.
2. On the "General" tab, click "Install". The "Select Network Component Type" window opens.
3. Double-click "Protocol". The "Select Network Protocol" window opens.
4. Click "Have Disk" and navigate to the "netefiatalk.inf" file located in the folder Tools\EFI AppleTalk Driver of your current EFI XF installation.



During installation, you may be requested to load the "netefiatalk.sys" file. You will find it located in the same folder.

5. Click "Open" to install the printer driver, and follow the on-screen instructions.
6. After installation, return to the "Local Area Connection Properties" window, and display the properties of the newly installed EFI AppleTalk driver. Make sure that your current network card is displayed and that a valid AppleTalk zone is selected.

7. Close all windows and restart your Windows computer.



Please read the following carefully. It may help to prevent problems when using the EFI AppleTalk driver.

- When you have successfully installed the EFI AppleTalk driver, make sure that a physical network card and a valid AppleTalk zone are selected. If there is no AppleTalk zone available on your network or if you are using a cross-link cable to connect the PC with the Macintosh, please also enter the properties of the EFI AppleTalk driver. The EFI AppleTalk driver is directly connected to your network card and requires certain information about it. Selecting the properties enables the driver to get access to this information.
- Make sure to restart your Windows XP computer after installing the EFI AppleTalk driver. If you do not perform a restart, EFI XF will not be able to detect the newly installed driver.
- When you have restarted your Windows XP computer, EFI XF can run a font download spooler and also set up hotfolders as AppleTalk printers if the AppleTalk spooler is enabled. If you want to perform a font download, it is recommended that you do so before you set up a hotfolder as an AppleTalk printer.
- The EFI AppleTalk driver is not compatible with any Microsoft AppleTalk protocol. Although no Microsoft AppleTalk protocol is available for Windows XP, it is strongly recommended that you uninstall any Microsoft AppleTalk protocols before using the EFI AppleTalk driver.

7.5.2 Setting up the EFI XF Client

To set up a virtual printer in EFI XF, you must have administrator rights. Proceed as follows:

1. In System Manager, select the workflow and set it offline.
2. On the "Input" bar, click the "Hotfolder" tab.
3. Define a hotfolder, as described in "Hotfolder tab" on page 4-9.
4. Select the check box "Create Virtual Printer" and define a printer name in the edit box. This is the name that will be displayed in the print dialog of the application.



If you intend to print from a Macintosh application via AppleTalk, you must also

- select the check box "Enable AppleTalk Spooler" and
- define a name for the AppleTalk spooler. If you do not enter a name, the default name "*workflow name on computer name*" is used.

These settings are not necessary to print via the CUPS spooler.

5. Set the workflow online.
6. Click "Save" to save the workflow.

7.5.3 OS settings

The necessary settings depend on which operating system you are running:

- the EFI XF Server
- the application

Follow the steps given in the appropriate section below.

7.5.3.1 Windows application printing to Windows Server

In Windows, EFI XF automatically creates a shared printer which can be used like any other shared printer. Check the following settings:

1. Windows 2003:
Select Start > Settings > Printers and check that the virtual printer is displayed in the list of available printers.
- Windows XP:
Select Start > Printers & Faxes and check that the virtual printer is displayed in the list of available printers.
2. Right-click the printer icon and select "Properties" from the context menu.
3. Select the "Sharing" tab and make sure that the radio button "Share this printer" is selected.
4. Click "OK".

You can now select the EFI XF printer from the print dialog of your application.

7.5.3.2 Macintosh application printing to Windows Server

Windows Server computer

Windows 2003:

Make sure that the AppleTalk protocol is installed.

Windows XP:

Make sure that the EFI AppleTalk driver is installed. Refer to "Setting up AppleTalk for Windows XP" on page 7-12 for further information.

Macintosh OS X settings (CUPS spooler)

In Macintosh OS X, EFI XF automatically creates a shared printer which can be used like any other shared printer. Check the following settings:

1. Open the Printer Setup Utility and check that the virtual printer is displayed in the list of available printers.
2. In System Preferences, select "Print & Fax".
3. On the "Printing" tab, make sure that the virtual printer is displayed.
4. On the "Sharing" tab, make sure that the check box "Share these printers with other computers" is selected. Ensure also that the check box next to your virtual printer is enabled.

You can now select the EFI XF printer from the print dialog of your application.

Macintosh OS X settings (AppleTalk spooler)

To print from applications installed in OS X you require a PPD.

The PPDs are installed automatically with EFI XF. You will find them in the folder Library:Printers:PPDs (Mac OS X Classic) or System folder:System extensions:Printer descriptions (Mac OS 9).



The PPDs are also located on the software CD. From the start screen, select "Tools & Other" and open the folder "Mac PPD".

On the Macintosh on which your application is installed, proceed as follows:

1. Copy the PPD for your language to the folder Library:Printers:PPDs.
2. Mac OS X 10.4:
 - In System Preferences, select "Print & Fax".
 - On the "Printing" tab, click "+" to display the dialog "Printer Browser".
 - Select the "IP Printer" tab.
 - From the pop-up menu "Protocol", select the IPP protocol and type in the IP address of the Windows Server.
 - Click "More Printers".
 - Continue with step 3.
3. Mac OS X 10.3:
 - In System Preferences, select "Print & Fax".
 - Click "Set Up Printers" to display the dialog "Printer List".
 - In the toolbar, click "Add".
4. From the pop-up menu, select "AppleTalk". A list of available AppleTalk printers is displayed. Make sure the correct AppleTalk zone is selected.
5. Highlight the EFI XF printer in the list. The printer is shown in the form "*workflow name on computer name*". Click "Add". The printer is added to the printer list.

You can now select the EFI XF printer from the print dialog of your application.

Macintosh OS X Classic, OS 9.2 settings (AppleTalk spooler)



To print via AppleTalk, certain additional settings are necessary in the Client. Refer to "Setting up the EFI XF Client" on page 7-13 for further information.

To print from applications installed in OS X Classic or OS 9.2 you require a PPD.

The PPDs are installed automatically with EFI XF. You will find them in the folder Library:Printers:PPDs (Mac OS X Classic) or System folder:System extensions:Printer descriptions (Mac OS 9).



The PPDs are also located on the software CD.
From the start screen, select "Tools & Other" and open the folder "Mac PPD".

On the Macintosh on which your application is installed, proceed as follows:

1. Copy the PPD for your language to the folder Library:Printers:PPDs (Mac OS X Classic) or System folder:System extensions:Printer descriptions (Mac OS 9).
2. Open Chooser.
3. Make sure that AppleTalk is active.
4. Highlight a LaserWriter printer. A list of PostScript printers is displayed.
5. Highlight the EFI XF printer in the list and select "Create". A dialog for selecting a PPD opens.
6. Double-click the PPD for EFI XF. A printer icon of the EFI XF workflow appears on the computer desktop.
7. Close Chooser.

You can now select the EFI XF printer from the print dialog of your application.

7.5.3.3 Windows application printing to a Macintosh Server

1. Open Control Panel and select "Printers and Faxes" (Windows XP) or "Printer" (Windows 2000/2003).
2. Double-click "Add Printer" and click "Next".
3. Select the radio button for adding a network printer and click "Next".
4. Select the radio button for connecting to a printer on the Internet or on a home or office network.
5. Fill in the text input field URL as follows:

`http://xx.xxx.xx.x:631/printers/virtual printer`

(where `xx.xxx.xx.x` stands for the IP address of the Macintosh computer on which EFI XF Server is installed and `virtual printer` stands for the name you have defined in the EFI XF Client)

6. Click "Next." At this point, you may be requested to install a Windows PPD for your operating system. If an appropriate Windows PPD is already installed, continue with step 12. Otherwise follow steps 7 to 11 to install the PPD.
7. From the "Printer Driver Selection" window, click "Have Disk" and browse to the "EFI\EFI XF\Tools" folder. This folder contains PPDs for each supported operating system.
8. Open the folder for your operating system and select the available *.inf file. Then click "Open".
9. Click "OK" to close the "Install From Disk" window and return to the "Printer Driver Selection" window.
10. From the printer list, highlight "EFI XF" and click "Next".
11. Click "Finish" and follow the on-screen instructions to complete installation.
12. Choose whether you want to set up the virtual printer as the default printer and click "Next".
13. Click "Finish".

You can now select the EFI XF printer from the print dialog of your application.

7.5.3.4 Macintosh application printing to a Macintosh Server

Macintosh OS X settings (CUPS spooler)

In Macintosh OS X, EFI XF automatically creates a shared printer which can be used like any other shared printer. Check the following settings:

1. Open the Printer Setup Utility and check that the virtual printer is displayed in the list of available printers.
2. In System Preferences, select "Print & Fax".
3. On the "Printing" tab, make sure that the virtual printer is selected.
4. On the "Sharing" tab, make sure that the check box "Share these printers with other computers" is selected. Ensure also that the check box next to your virtual printer is enabled.

You can now select the EFI XF printer from the print dialog of your application.

Macintosh OS X settings (AppleTalk spooler)

1. Mac OS X 10.4:

- In System Preferences, select "Print & Fax".
- On the "Printing" tab, click "+" to display the dialog "Printer Browser".
- Select the "IP Printer" tab.
- From the pop-up menu "Protocol", select the IPP protocol and type in the IP address of the Windows Server.
- Click "More Printers".
- Continue with step 2.

Mac OS X 10.3:

- In System Preferences, select "Print & Fax".
- Click "Set Up Printers" to display the dialog "Printer List".
- In the toolbar, click "Add".

2. From the pop-up menu, select "AppleTalk". A list of available AppleTalk printers is displayed. Make sure the correct AppleTalk zone is selected.
3. Highlight the EFI XF printer in the list. The printer is shown in the form "*workflow name on computer name*".

Click "Add". The printer is added to the printer list.

You can now select the EFI XF printer from the print dialog of your application.

Macintosh OS X Classic, OS 9.2 settings (AppleTalk spooler)

1. Insert the Macintosh software CD into the CD-ROM drive and display the contents of the CD.
2. From the start screen, select "Tools & Other" and open the folder "Mac PPD".
3. Copy the PPD for your language to System folder: System extensions: Printer descriptions.
4. Open "Chooser".
5. Make sure that AppleTalk is active.
6. Highlight a LaserWriter printer. A list of PostScript printers is displayed.
7. Highlight the EFI XF printer in the list and select "Create". A dialog for selecting a PPD opens.
8. Double-click the PPD for EFI XF. A printer icon of the EFI XF workflow appears on the computer desktop.
9. Close Chooser.

You can now select the EFI XF printer from the print dialog of your application.

8 Nestings

This chapter describes how to set up workflows for automatic and manual nesting.

8.1 What are nestings?

The nesting feature in EFI XF enables you to output any number of files collectively as one single print job.

There are two types of nestings: automatic and manual. Automatic nesting is defined for a specific workflow in System manager. It ensures that all jobs processed via that workflow are printed out as part of a nesting job. If a workflow is not set up for automatic nesting, nestings of chosen jobs can be compiled manually in Job Explorer.

In a workflow set up for automatic nestings, jobs are output as soon as, but not before, a defined state has been reached. EFI XF arranges them in the nesting in accordance with the workflow settings and outputs them automatically. This gives users the freedom to submit non-urgent print jobs at any time.

If a workflow is not set up for automatic nesting, you can create so-called manual nestings. This gives you full control over which images are grouped together and how they are arranged on a nesting and also lets you perform job-specific changes to images before printing.

Each nesting job can be assigned individual color management settings, e.g. profiles, spot color tables, etc. Refer to "Color management tab" on page 4-19 for further information.



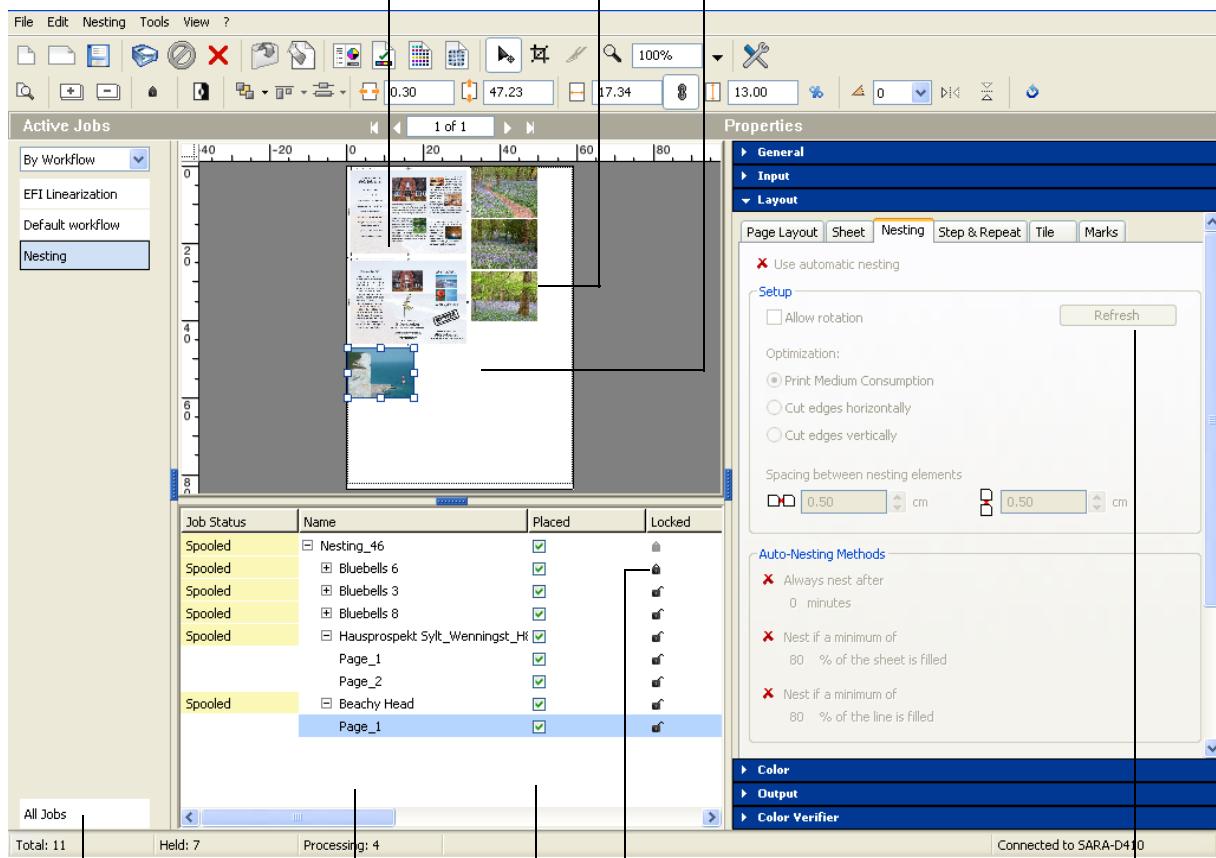
It is possible to output nestings as tiles by defining a sheet size that is bigger than the media size set for the printer.

8.2 User interface

Page on a nesting. Pages can be in any supported file format.

Object on a page. Objects cannot be modified.

A nesting sheet represents the output size. If the defined sheet size exceeds the maximum media size supported by the selected printer, the nesting can be output as a tiling.



Click to display all loaded jobs. This enables you to create nestings of jobs from different workflows.

Saves your changes and rearranges all pages in accordance with the new settings.

Sets a page at its current settings and position on the sheet. A locked page (closed padlock) cannot be modified, nor can it be rearranged on the sheet. To make modifications, the page must first be unlocked (open padlock). It is possible to lock single pages of a multi-page document.

Places or unplaces a page. When unplaced, the page is removed from the nesting preview. A green check mark indicates that all subfiles are placed; a gray check mark indicates that some, but not all, subfiles are placed.

Tree view of job list:

Level 1 displays the name of the nesting, e.g. Nesting_46.

Level 2 displays the name of the job, e.g. Bluebells 3

Level 3 displays the number of pages or copies the job contains

8.3 Automatic nestings

In a workflow set up for automatic nestings, printing starts automatically as soon as one of the following criteria has been reached:

- The defined length of time has elapsed.



This setting has priority over the other auto-nesting settings, e.g. a nesting will be printed after the set period even if the minimum percentage of the sheet or line has not been filled.

- The defined percentage of the sheet area has been filled
- The defined percentage of a line has been filled

To create a workflow for automatic nesting, proceed as follows:

1. Log on to EFI XF as a user with administrative rights.
2. In System Manager, create and set up a workflow.
3. On the "Layout" bar, click the "Nesting" tab and make sure that the check box "Use automatic nesting" is selected.
4. Make the rest of your settings on the "Nesting" tab. Refer to "Nesting tab" on page 4-15 for further information on individual settings.
5. In Job Explorer, load one or more jobs. EFI XF creates a nesting and outputs it according to the workflow settings.



Manual nestings are also possible in an automatic workflow if you set your files to "Hold Job" during loading.

Please note: To create manual nestings of files loaded via drag and drop or via a hotfolder the workflow must be set offline at workflow exit. Otherwise, the print jobs will be processed immediately before a nesting can be created.

8.4 Manual nestings

In a workflow not set up for automatic nesting, you can compile your own manual nestings and output them when you are ready.

To create a manual nesting, proceed as follows:

1. In Job Explorer, load one or more jobs. Make sure to load them as "hold" jobs.



Please note: To create manual nestings of files loaded via drag and drop or via a hotfolder the workflow must be set offline at workflow exit. Otherwise, the print jobs will be processed immediately before a nesting can be created.

2. In the job list, highlight the spooled job(s) and select "File > New Nesting". Alternatively, right-click the job in the job list and select "New Nesting" from the context menu. A nesting is created. Nesting jobs always receive the name "Nesting", followed by a consecutive number, e.g. "Nesting_42".



By clicking "All Jobs" at the bottom of the Selector, you can create nestings from jobs loaded in different workflows.

Highlight the required jobs, select the command "New nesting" and, in the window that opens, choose the workflow in which to create the nesting.

3. On the "Layout" bar, select the "Nesting" tab and make your required settings. Refer to "Nesting tab" on page 4-15 for further information on individual settings.
4. Click "Refresh" to ensure that all the jobs are placed and arranged in the nesting in accordance with the defined settings.



Please note:

- All manually made settings are undone when you click "Refresh". You can prevent this by locking images. A locked page (closed padlock) cannot be modified, nor can it be rearranged on the sheet.
- The setting "Allow rotation" cannot be undone. Rotated jobs are not returned to their original orientation if you deselect the check box and refresh the nesting preview.
- If the preview is deactivated for the workflow, you may want to select "Edit > Create preview" to view the nesting.
- Jobs that are bigger than the defined sheet size cannot be placed.

5. To add further jobs, highlight the nesting job and select "Add job to nesting" from the context menu. Jobs that are added in this way appear in the list of nested jobs, but are not initially visible in the preview.



You may also add additional jobs via drag and drop.

6. Select the check box "Placed" next to the newly added job. The job is displayed in the nesting but is not arranged.
7. Highlight the nesting job in the job list and click "Refresh" to arrange all images according to the current settings made on the "Nesting" tab and update the job preview.



EFI XF provides a wide range of different settings for manipulating jobs. Refer to "Settings in Job Explorer" on page 6-1 for further information.

9 EFI XF Control

This chapter describes the commands that are available to you via EFI XF Control.

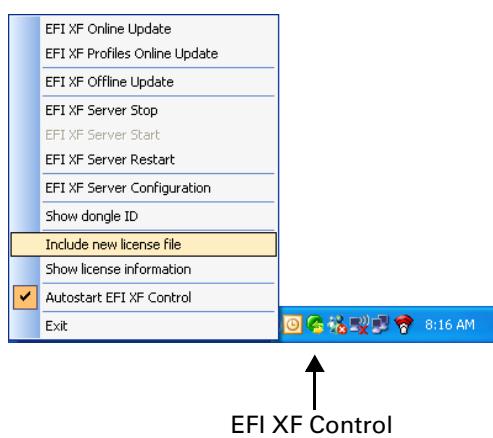


9.1 What is EFI XF Control?

During installation of the Server software, a button is created in the system tray on the lower right of the computer desktop (Windows) or in the Dock (Macintosh). This button represents EFI XF Control, a tool used to control the Server.

EFI XF Control consists of a number of menu commands, which are accessed by

- Right-clicking the EFI XF Control button (Windows)
- Holding down <Ctrl> and clicking the EFI XF Control button (Macintosh).



9.2 Available features

9.2.1 EFI XF Online Update

EFI provides users with the opportunity to download software updates from the EFI website.

It is recommended that you regularly search for and install all updates to ensure that your software is always up to date.



Online updates are only possible on the Server computer. If your Server computer does not have Internet access, you can obtain software updates from your EFI dealer and install them using the menu command "EFI XF Offline Update".

To update your software, proceed as follows:

1. Exit all applications.
2. Select "EFI XF Online Update" to start the updater application.
3. Select the appropriate check box if you want to save the update files to your computer desktop. This is necessary, for example, if you wish to update the software on a different computer from the current computer. If you do not select the check box, the software on the current computer will automatically be updated. Then click "Next".



Before you can install online updates, you may have to register your product. Click "Click here to proceed". The window "EFI Global Registration" opens and you are requested to type in and submit your e-mail address. Follow the online instructions to register your product.

A window with a list of currently available software updates opens. The window indicates which update files are available and also gives information regarding file size and version number.

4. Select the check boxes of the updates you wish to install and click "Next".

The update files are downloaded to your computer and EFI XF is updated. If you opted to save the update files, a folder "EFI Downloads" is created on your desktop.

In the case of Macintosh updates, the files are downloaded to the application folder EFI XF\Tools.

5. Follow the on-screen instructions to complete installation and restart your computer.



If you want to check which updates are installed on your computer, select "EFI XF Server Information" from the "?" menu (Windows) or from the "Help" menu (Macintosh). A list of currently installed updates is displayed on the "Installed XF Updates" tab.

This command is only available if Server and Client are installed on the same computer.

9.2.2 EFI XF Profiles Online Update

EFI provides users with the opportunity to download additional or improved media profiles from the EFI website.

It is recommended that you regularly search for and install all updates to ensure that your software is always up to date.



Online updates are only possible on the Server computer. If your Server computer does not have Internet access, you can obtain profile updates from your EFI dealer and install them using the menu command "EFI XF Offline Update".

To install new media profiles, proceed as follows:

1. Exit all applications.
2. Select "EFI XF Profiles Online Update" to start the updater application. Then click "Next".
3. Select the tab for your printer manufacturer. (Asian users should select "EFI Asia" for all printers.)
4. Select the check box for your printer model to install all available profile updates. (Clicking the plus sign next to the printer model enables you to select profiles for specific media.)
5. Click "Add profiles" to save your profile selection.
6. Select the tab "Selected Profiles" and then click "Update now".
7. Follow the on-screen instructions to complete installation and restart your Server.

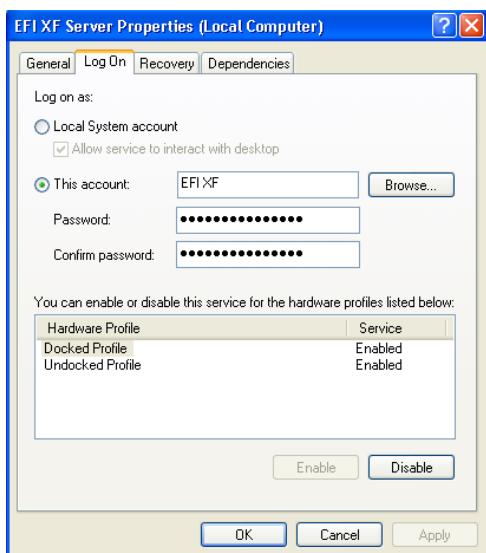
9.2.3 EFI XF Offline Update

If your computer does not have Internet access, software updates and media profiles can be obtained from your EFI dealer or downloaded from the EFI website from a different computer. When you have saved the software updates or profiles on your computer, use this menu command to install them.

9.2.4 EFI XF Server Stop/ EFI XF Server Start/ EFI XF Server Restart

Choose this command to start, stop or restart the EFI XF Server.

9.2.5 EFI XF Server Configuration (Windows only)



The EFI XF Server runs on Windows as a service. By default, the login rights are defined for the local computer. This means that EFI XF is not able to communicate with folders located in a network environment. This may present problems, for example, if you wish to print jobs via a hotfolder. In this case, you need to assign network access rights for the EFI XF Server.

To do so, first create a Windows user with administrative rights. Then, proceed as follows:

1. From EFI XF Control, choose "EFI XF Server Configuration." The "Services" window opens.
2. In the list, right-click on "EFI XF Server" and select "Properties" from the context menu.
3. Click on the "Log On" tab.
4. Select the radio button "This account." Then type the user name and password.
5. Click "OK" and close all windows.
6. Restart the Server.

9.2.6 Show dongle ID

Choose this command to display your dongle ID. This number is required to download a license file from the EFI website. Refer to "Licensing your software" on page 2-1 for further information.

9.2.7 Include new license file

Choose this command to install a license file that grants you access to the software modules you have purchased.

9.2.8 Show license information

Choose this command to show the expiration date of your license. This command is applicable only to users with a restricted license.

9.2.9 Autostart EFI XF Control (Windows) Open at Login (Macintosh)

By default, EFI XF Control will be started automatically whenever you turn on your computer. The command has a check mark next to it.

Choose this command to remove the check mark if you do not want EFI XF Control to be started automatically. In this case, you can start the tool manually when required, as follows:

- Start > All Programs > EFI > EFI XF > EFI XF Control (Windows XP)
- Start > Programs > EFI > EFI XF > EFI XF Control (Windows 2003)
- System Preferences > System > Accounts > Login Items > EFI XF Control (Macintosh)

9.2.10 Exit (Windows)/Quit (Macintosh)

Choose this command to exit EFI XF Control. To restart, select:

- Start > All Programs > EFI > EFI XF > EFI XF Control (Windows XP)
- Start > Programs > EFI > EFI XF > EFI XF Control (Windows 2003)
- EFI XF Control > Open (Macintosh)

10 Production Option

The Production Option is available as an add-on module. This chapter describes the available production tools and how to use them.

10.1 What are the production tools?

The Production Option provides the following:

- A tiling function to enable you to print an image, which would normally exceed your printer's maximum print size, by breaking it into parts (tiles) for printing. The tiles are pieced together after printing to produce an oversize poster or banner, etc.
- An extended step and repeat feature with which to achieve many different and interesting patterns.
- Simple color adjustment tools.

10.2 Production Option settings

If you have a license file for the Production Option, EFI XF is extended as follows:

In System Manager:

- The "Tile" tab is added to the "Layout" bar
- Additional settings become available on the "Step and repeat" tab of the "Layout" bar.
- The "Color adjustment" tab is added to the "Color" bar

In Job Explorer:

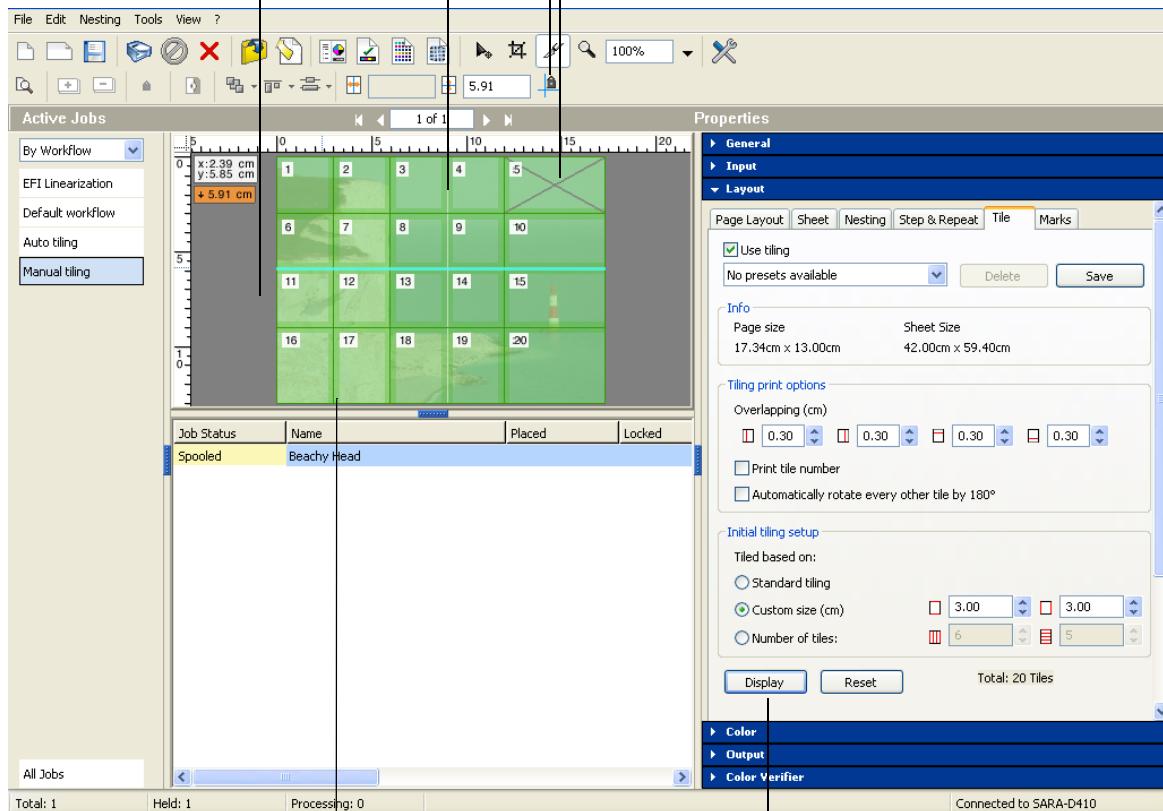
- The "Tile" tab is added to the "Layout" bar
- Additional settings become available on the "Step and repeat" tab of the "Layout" bar.
- The "Color adjustment" tab is added to the "Color" bar
- Special tiling tools become available in the toolbar

10.3 Tiling

A selected tile edge is displayed in turquoise.

Tile edges can be locked in a fixed position. Locked tile edges are displayed in gray.

Individual tiles can be omitted from the print job by selecting the appropriate command from the context menu.



Saves your changes and creates a tiling in accordance with the settings made on the "Tiling" tab.

Tiles can be output with overlapping to make it easier to piece them together after printing.

10.3.1 Tiling toolbar



When you install a license for the Production Option, the tiling button is added to the first toolbar. It is enabled whenever a tiling is previewed. Clicking this button displays the tiling tools in the second toolbar.

The following tiling tools are available:



Move tile edge

You can use these edit boxes to help you define an exact tile size and position.



Lock tile edge

Click this button to lock a selected tile edge in its current position.

10.3.2 Tiling tab

The following settings are available on the "Tile" tab of the "Layout" bar:

Use tiling

Select this check box to activate the tiling function.

The settings you make on this tab can be grouped together and saved in the form of a preset.

Initially, no presets are available. However, once you have made settings on this tab, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.



It is possible to use tiling and step & repeat in combination.

Info

This area displays the total size of your image and the sheet size.

Overlapping

Here you can type in values for the margin of overlapping. Printing with overlapping can help you to piece your tiles together after printing. Overlapping values can be defined for top, bottom, left and right margins.



EFI XF uses the default system of measurement set up in the operating system – centimeters, millimeters or inches. However, you may change this setting if you wish. Refer to "Edit menu" on page 4-2 for further details.

Print tile number

Choose whether you want to print each tile with a consecutive number. This can help you to piece the image together in the right order after printing. The tile numbers are printed outside the actual tile area so as not to mar the image.

Automatically rotate every other tile by 180°

By selecting this check box, you can minimize inconsistencies in the color density, which may occur when using grande-format printers with UV inks.

Using this function can help lessen the effect of color deviances in large areas of a single color (e.g. blue sky). Rotating every other tile by 180° can help create an invisible seam when piecing tiles together, as illustrated in the diagram.

Initial tiling setup

- Standard tiling

Select this radio button to use the standard tile size. The standard tile size is calculated based on the media size defined for the output device and on the settings for overlapping made above.

- Custom size

Select this radio button and use the edit boxes to define the width and height of a custom tile size. The smallest tile size is one square inch. The largest tile size is the maximum printable area of the selected sheet size.

- Number of tiles

Select this radio button to define the number of rows and columns of tiles.

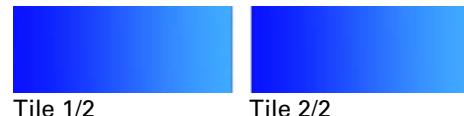
Display (Job Explorer only)

Select this button to create tiles of a selected job.

Reset (Job Explorer only)

Select this button to remove all tiles. This is necessary if you need to modify the original job file.

Tile not rotated = color inconsistent



Tile rotated by 180° = color consistent



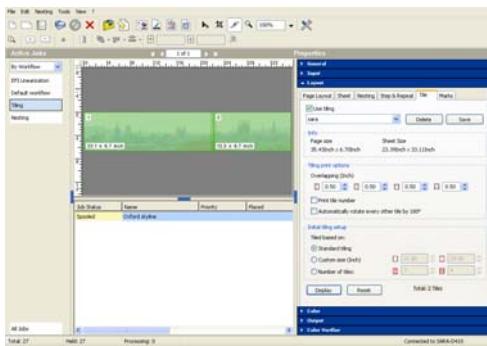
10.3.3 Creating a tiling

Tilings are based on the media size set up for the connected output device. Each created tile is the same size as the media size defined for the output device, whereby the hardware margins of the printer are taken into account.

10.3.3.1 Setting up an automatic tiling workflow

Automatic tiling can be set up for any workflow. It ensures that any jobs that exceed the media size defined for the printer are automatically output as tiles.

1. In System Manager, select a workflow.
2. On the “Layout” bar, select the “Sheet” tab.
3. On the “Sheet” tab, make sure “Use Printer Options” is selected.
4. Select the “Tile” tab.
5. On the “Tile” tab, select the check box “Use tiling”
6. Then make any other tiling settings you require. Refer to “Tiling tab” on page 10-3 for further information on individual settings.
7. Click “Save” to save the workflow.



8. Go to Job Explorer and import a job. A tiling is automatically created according to the settings.

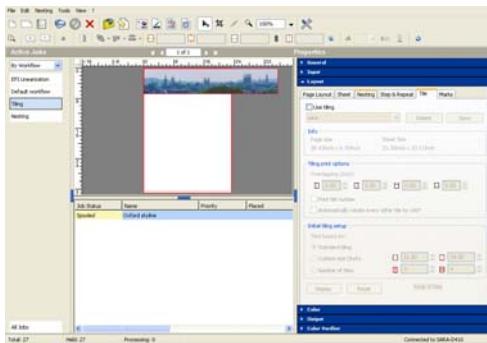
In an automatic tiling workflow, the tiling settings are automatically applied to all jobs. However, by importing a file as a "hold job", you can modify the tiling settings for individual jobs, as required.

10.3.3.2 Manual tiling

If a workflow is not set up for automatic tiling, you can still output it as a tiling if it exceeds the size of the media defined for the printer.

To create a manual tiling, proceed as follows:

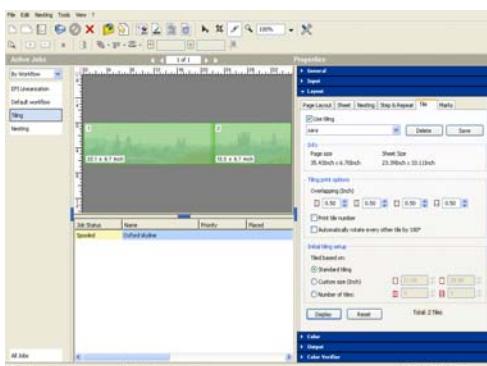
1. Go to Job Explorer and load a job as a "hold job" in any workflow.
2. Select the job in the job list. The preview displays the image in relation to the selected media format.
3. On the "Layout" bar, select the "Tile" tab.
4. On the "Tile" tab, select the check box "Use tiling".



5. Make any other required tiling settings on this tab and click "Display". A tiling is automatically created according to the settings.



It is possible to switch backward and forward between the tiling and transform toolbars, if required.



10.3.3.3 Changing individual tile sizes

Once you have created a tiling, you may wish to make changes to individual tiles, perhaps resize the width or height in order to avoid awkward joins, such as down the middle of a face, when piecing the tiles together.

To change the size of a tile, proceed as follows:

1. Select a tile edge.



The current cursor position is displayed in an orange box to help you to pinpoint the exact horizontal or vertical value of the edge more easily.

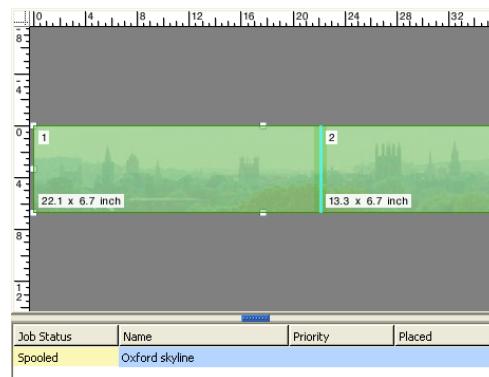
Take care when selecting a tile edge that you do not accidentally move the cursor and increase the size of a tile. This will cause a new tile to be automatically created. If you do not want a new tile to be created, click "Display" to undo.

The tile edge changes from green to turquoise and the tiling tools in the second toolbar become enabled.

2. Drag the mouse to the required position. Alternatively, you can type in an exact horizontal or vertical value in the appropriate edit box of the tiling tools.



If you try and enlarge a tile to bigger than the available media size, an additional tile is automatically created.



You can fix a tile edge at its current position by:

- Clicking the padlock button in the toolbar
- Right-clicking a tile edge and selecting the appropriate command from the context menu.

10.3.3.4 Deleting/adding tiles

If you right-click on a tile edge, a context menu becomes available. The commands enable you to:

- merge two tiles into one by deleting a tile edge or
- split one tile into two by adding a new tile edge

10.3.3.5 Printing

To print a whole tiling job at once, select the print command as you would for an ordinary print job.

In addition, EFI XF lets you:

- print selected tiles immediately
(e.g. if some tiles have been destroyed, you can reprint just these tiles without having to reprint the whole job)
- omit selected tiles from the print job
(e.g. to avoid printing parts of tilings that are not needed, such as those covering window areas)

The appropriate commands become available when you right-click a tile.

You can print a tile which has previously been omitted from a print job by selecting the command "Print tile immediately" from the context menu.

10.4 Step & repeat

The step-and-repeat tab on the "Layout" bar enables you to create multiple copies of a file and output as one print job. With the Production Option, additional settings become available which make it possible to achieve many different and interesting patterns.



Once the step-and-repeat function has been applied, it is not possible to make further changes to the original image. This is indicated by a lock icon. To make changes to the original image (e.g. scaling, rotation), you must first delete all the copies by clicking "Reset".

Use automatic step & repeat (System Manager only)

Select this check box to print multiple images of a single print job according to the layout settings defined on this tab.



Please note that automatic nesting and automatic step & repeat cannot be used simultaneously.

It is, however, possible to use tiling and step & repeat in combination.

The settings you make on this tab can be grouped together and saved in the form of a preset.

Initially, no presets are available. However, once you have made settings on this tab, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.



Spacing

Use this setting to define the horizontal and vertical gap between images. The illustration shows horizontal and vertical spacing of 1 mm between images.

Step offset

Use this setting to define the amount of horizontal or vertical shift from one image to the next. From the drop-down list box select "Horizontally" or "Vertically" and type the amount of offset in percent. The illustration shows a horizontal offset of 50%.



Mirror

Select a check box to flip a row and/or column of images. The illustration shows the mirror function applied to both rows and columns.



Step & Repeat Method

- **Fill layout**

Select this radio button to fill the selected sheet size.

- **Fill rows and columns**

With this setting you define the number of rows and columns to fill:

- Select the appropriate check boxes to fill as many rows or columns as will fit on the sheet size.
- To define a specific number of rows or columns, deselect the appropriate check box. Then use the edit box to type in the required number. The default setting is one row and one column, i.e. one image.

- **Total number of copies**

Select this radio button and define the number of copies to reproduce.

Display (Job Explorer only)

Select this button to apply the step & repeat settings to the selected job.

Reset (Job Explorer only)

Select this button to undo the currently applied step & repeat settings.

10.5 Color adjustment tools

The following settings are available on the "Color adjustment" tab of the "Color" bar:

Use adjustments

Select this check box to activate and edit the settings on this tab. If the check box is not selected, no color adjustments are possible. Any settings made previously will not be applied during printing.

If you make color settings on this tab, you can compare your color adjustments with the original colors by activating and deactivating this check box.

The settings you make on this tab can be grouped together and saved in the form of a preset.

Initially, no presets are available. However, once you have made settings on this tab, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

RGB/CMYK tabs

Use the slidebars to add or subtract color for CMYK or RGB images. EFI XF automatically recognizes the color space of an imported image and applies the settings accordingly.

In Job Explorer, EFI XF automatically displays slidebars for the color space of the selected job.



These settings are not available if your print job is a grayscale image. However, you can adjust the settings for brightness, contrast and sharpen.

Brightness/Contrast/Saturation

Use the slidebars to adjust the brightness, contrast and saturation of your images.



The settings for brightness, contrast and saturation are applied to the color adjustments defined above.

Blur/Sharpen

Use the sidebar to blur or sharpen your images.

11 Color Verifier

Color Verifier is available as an add-on module. This chapter describes how to use the software to verify the color accuracy of your print jobs.

11.1 What is Color Verifier?

Color Verifier is a color checker tool. It enables you to measure and compare two different sets of color values to ensure that color accuracy is maintained.

The software is extremely flexible and can be used to check the color accuracy of the following different output combinations:

- Profile-to-proof
- Proof-to-proof
- Proof-to-print
- Print-to-print
- CMYK profile-to-print

Comparing CMYK profile-to-proof is one of the most useful applications for Color Verifier. For example, in a normal everyday situation, you can compare the color values of a proof that has been created on your printer with those of the profile that simulates the printing press used for the final print run. If the measured color values are a good match, this indicates that the final print run will also be color accurate.

The measured values can be saved, so that the information can be dispatched easily, e.g. via e-mail, to verify the print quality. This makes Color Verifier ideal for use in both in-house as well as in remote environments.



Please be aware that it is not possible to process grayscale or L*a*b* files in Color Verifier.

11.2 Scope of delivery

Color Verifier is available as an add-on module for EFI XF (with or without the ES-1000 measuring device)

If you have purchased an ES-1000 measuring device with the Color Verifier software, check that you have received all the items illustrated.



- Please note that a number of additional items are shipped with the ES-1000, which are not required for Color Verifier.
- The ES-1000 measuring device and the calibration plate with white reference each have a serial number. The serial numbers of the respective devices must match; otherwise a correct calibration is not possible.
- Make sure to observe the information later in this chapter regarding installation and maintenance.

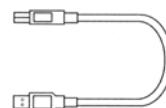


ES-1000

Calibration plate with white reference



Scanning ruler



USB cable

11.3 Installing Color Verifier

When you purchase Color Verifier as an add-on module, you receive a Product Activation Certificate. This contains an Entitlement Access Code, which you require to obtain a new license file. Installing the license file grants you automatic access to Color Verifier. Refer to “Licensing your software” on page 2-1 for further information.



The order in which you set up Color Verifier is important!

Make sure that the software is correctly installed before you connect a measuring device to your computer.

11.4 User interface

In the toolbar of EFI XF, click “Open Color Verifier” to launch the application.

11.4.1 Program window



Color values can be displayed in L*a*b*, RGB, XYZ or CIELCH format.

3D view. To rotate the 3D image, hold down the mouse button on the color wheel and move the cursor.

2D view

Displays a list of jobs received from EFI XF.

Enlarge 2D/3D view. In the 3D view, you can change the display settings.

The measured color values M1 and M2 are displayed in the L*a*b* color wheel. When you move the mouse cursor over a color, the corresponding value is highlighted in the M1/M2 table and in the color wheel. The appropriate delta E value is also highlighted.

In the “Preferences” dialog you define measurement settings.

Show/hide the M1/M2 values displayed in the color wheel.

There are two display modes: tile or cascade. The display mode is changed via the context menu.

Establishes a connection to the measuring device.

Shows whether the measured values for delta E and paper white are within the defined values.

Scroll bar with which to modify the lightness setting.

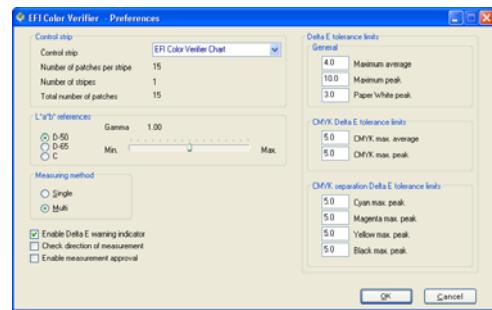
Shows whether the measured values for delta E and paper white are within the tolerances defined for each color channel.

11.4.2 Preferences dialog

To open the “Preferences” dialog, click “Preferences” in the program window. In this dialog you can define the following settings:



The settings in this dialog apply only if you are using Color Verifier as a stand-alone tool. If Color Verifier is incorporated into an EFI XF workflow, the equivalent settings available in System Manager override the settings made in this dialog.



Control strip

Select the control strip displayed on the printout you wish to measure.

The following information is displayed :

- the number of color patches per stripe
- the number of stripes contained in the control strip
- the total number of color patches

L*a*b* references

Here you make the light (illuminant) setting for the conversion from spectrophotometric values to L*a*b* values. Choose between D50, D65 and C.

Select the gamma setting. The gamma setting adjusts how the M1 and M2 readings appear on your computer screen.

Measuring method

- Single

Choose this command to measure the color values of individual color patches.

- Multi

Choose this command to measure the color values of the control strip output with your proof.

Enable Delta E warning indicator

When you select this check box, the amount of deviation from the defined tolerance values is illustrated in the delta E table. The following color code is used:

Color	Delta E value
White	0 to defined average delta E value
Yellow	Defined average delta E value to defined maximum peak value
Orange	Values exceeding defined maximum peak value

Check direction of measurement

When you select this check box, the colors are measured according to the direction in which the measuring device is moved, i.e. from left to right or from right to left. If this check box is not selected, the control strip color values are always displayed as if the measurement had been read from left to right.

Enable measurement approval

This setting enables you to approve measurement readings that are not within the defined tolerance values. If this check box is selected and you try and send the results to EFI XF, a message prompts you to confirm that you wish to approve the measurement results.



This setting has no functionality in the stand-alone version of the software.

Delta E tolerance Limits

Here you define the acceptable delta E values for:

- All colors (average and peak)
- Paper white (peak)
- CMYK combined (average and peak)
- Each individual CMYK color channel (peak)

If any of the color readings lie outside the acceptable range of tolerance, Color Verifier will indicate that the result is not satisfactory.

Define, as required:

- The “Max. average” (the addition of all values divided by the total number of measured color patches) and
- The acceptable “Max. peak” (the difference between any given M1 and M2 value).

11.4.3 EFI 3D Viewer

To open EFI 3D Viewer, first display a 3D view, then click “Enlarge 3D view”. In EFI 3D Viewer you can define the following settings:

M1/M2

Click on the appropriate tab to define the settings for displaying your M1 or M2 measurement values.

Nodes

Select this check box to display the nodes of the individual color measurements. The color in which the nodes are displayed is indicated in the area next to the check box. To alter the default color, double-click on the colored area and select or define a color in the “Color” dialog.

Lines

Select this check box to connect the nodes of the individual color measurements. The color in which the lines are displayed is indicated in the area next to the check box. To alter the default color, double-click on the colored area and select or define a color in the “Color” dialog.

Fill

Select this check box to display the represented color space as a solid form. The color in which the solid form is displayed is indicated in the area next to the check box. To alter the default color, double-click on the colored area and select or define a color in the "Color" dialog.

Transparency

This sidebar bar allows you to define the degree of transparency for M1 or M2 values.

Visible

Select this check box to show or hide the pictorial diagram of M1 or M2 values. This setting has the same effect as the check boxes "Show in color space".

Background color

Click the colored area to open the "Color" dialog and select or define the background color of EFI 3D Viewer.

Color disk

When this check box is selected, the color wheel is displayed in EFI 3D Viewer. Deselect this check box to hide the color wheel.

Full color gamut

Select this check box to apply the full color gamut to the displayed measured values. This setting overrides the "Fill" setting made in this dialog. It is only available in conjunction with the setting "Smooth".

Smooth

Select this check box to smooth the edges of the displayed measured values.

Enable projection

Select this check box to activate the "Projection point" button.

Projection Point

Click this button to open a dialog in which you can define an L*a*b* value to be compared with M1 or M2. The defined node is displayed in EFI 3D Viewer. If the color lies outside the depicted color gamut, a line is drawn to illustrate the point to which the color would be mapped.

Set defaults

Click this button to return all the settings in this dialog to their default values.

Reset rotation

Click this button to return the display angle to its original position.

Close

Click this button to close EFI 3D Viewer.

11.4.4 Menus

11.4.4.1 File menu

Open M1

Choose this command to load the first set of settings, e.g. a reference profile or a JDF or CSV file.

This menu command corresponds to the “Open” button for measurement 1.

Open M2

Choose this command to load the second set of settings, e.g. a reference profile or a JDF or CSV file.

This menu command corresponds to the “Open” button for measurement 2.

Save

Choose this command to save the displayed readings.



Your settings are saved in CSV format. A CSV file can be opened and edited in any spreadsheet application.

When you choose this command, the folder you defined as the data folder is automatically opened.

Add data to JDF

Choose this command to add the currently displayed readings to an already existing JDF file.



It is not possible to create a new JDF file using this command. Your settings can only be added to an already existing file.

You can save multiple sets of measurements to a JDF or CSV file.

You must have an EFI proofing solution installed on the computer in order to access a JDF file.

Print

- Screenshot

Choose this command to print an image of the current program window.

- Protocol

Select “Protocol” to print an overview of the color settings and measurement results. When you choose this command, a dialog opens with details of the printing conditions. Complete the form by adding job-specific information, if required. Protocol files can be saved in .prt format to the defined data folder.

- **Label**

Select "Label" to print out labels on a supported Dymo device. When you choose this command, a window opens which displays the measured results. You can complete the form by adding job-specific information, if required. Labels can be saved in .prt format to the defined data folder.

Printer setup

Choose this command to select a printer and make the desired printer settings.

Login

Choose this command to display the "Login" dialog. This command enables you to log in under a different user name or to log on to a different Server.



In the Macintosh version of the software, you will find the command in the EFI Color Verifier menu.

Exit (Windows)/Quit EFI Color Verifier (Macintosh)

Choose this command to exit Color Verifier. If you have not previously saved your settings, you will be prompted to do so before the program closes.



In the Macintosh version of the software, you will find the command in the EFI Color Verifier menu.

11.4.4.2 Preferences menu

Measuring method

- **Single**

Choose this command to measure the color values of individual color patches.

- **Multi**

Choose this command to measure the color values of the control strip output with your proof.

Color space

With this command you select in which color space the measured readings will be displayed.

Choose between RGB, L*a*b*, XYZ, CIELCH or Density. L*a*b* is the default color space setting for this command.



“Density” is only available for selection if you have already measured and displayed color values.

In a color-accurate proof, the displayed density values are comparable with the density values obtained during a production run.

However, please note that the density values of individual inkjet inks are not comparable with the density values of printing inks. This is because, for example, the cyan ink used in offset printing is different from the cyan ink used in an inkjet printer.

This function is also available via the context menu. To display the context menu, right-click the tables with the displayed M1 and M2 color measurements.

Control strip

With this command you select the control strip you wish to measure. You can also use a control strip of your choice.



This setting applies to the stand-alone version only. If you are using Color Verifier as part of EFI XF, this setting is made in System Manager.

Delta E format

With this command you select the color space in which the tolerance, i.e. the color deviation, between the two loaded sets of color values will be displayed. The tolerance is expressed as delta E values.

Choose between CIE L*a*b*, CMC and CIE 94 tolerancing. The table below illustrates the level of agreement between visually assessed colors, i.e. colors as perceived by the human eye, and measured colors:

Tolerance Method	% Agreement with Visual
CIELAB	75%
CMC	95%
CIE 94	95%

Source: X-Rite Incorporated
A Guide to Understanding Color Communication, 2000

This command is also available via the context menu. To display the context menu, right-click the delta E table.



This setting applies to the stand-alone version only. If you are using Color Verifier as part of EFI XF, this setting is made in System Manager.

Define folders

- Data folder

Choose this command to define a folder in which to save your files.

- Control strip folder

Choose this command to define a folder from which to load your control strip files.

Language (Windows only)

Choose this command to change the language in which the user interface is displayed. By default, Color Verifier is displayed in the language selected during installation.



On a Macintosh, you can change the language via the international settings in "System Preferences".

Measuring device

Color Verifier supports a number of different measuring devices. Choose your measuring device from the submenu.



If you are using a DTP20 measuring device, you are required to measure a TID patch before measuring the control strip. In most cases, this patch is printed out automatically with your print job.

However, if you have selected an Ugra Fogra media wedge, you will need to print the TID patch separately. A file containing the TID patch is installed with EFI XF. You will find it in the "Tools" folder.

11.4.4.3 Help menu

Help (Windows)/EFI Color Verifier Help (Macintosh)

Choose this command to access online help.

www.efi.com

Choose this command to access the EFI homepage.

E-mail to support

Choose this command to send an e-mail direct to our Support team if you require help with your product.

About (Windows)/About EFI Color Verifier (Macintosh)

Choose this command to open a window with details of your program version.



In the Macintosh version of the software, you will find the command in the EFI Color Verifier menu.

11.5 Color Verifier settings in EFI XF

If you have purchased Color Verifier as an add-on module, the program windows System Manager and Job Explorer are extended as follows:



- a program icon appears in the toolbar
- an additional bar “Color Verifier” appears in the property inspector.

11.5.1 System Manager

The following settings are available on the “Color Verifier” bar when you select a workflow:



The settings you make on this bar override the same settings that are available in Color Verifier.

Use Color Verifier

Select this check box to incorporate EFI Color Verifier into your workflow. When selected, print jobs are automatically sent to EFI Color Verifier during job processing to enable you to check the color consistency of your printouts.

Measurement workflow

- If you want to compare profile-to-proof, select “Compare measurement with reference profile”. In this case, the color values from the simulation profile will be automatically loaded as the M1 value in Color Verifier. This enables you to make a direct color comparison when you measure the printed reference.

EFI XF compares the color accuracy of a printout with that of the profile that was last applied during job processing. In a normal workflow situation, the source profile is applied first and then the simulation profile. In other words, a source profile will only be used if no simulation profile is available.

- If you are comparing proof-to-proof, proof-to-print or print-to-print, select “None”. This is because you need to measure two different printouts to obtain the desired values.

Delta E

Select the color space for displaying delta E values. This setting is identical to the one made in the “Preferences” dialog in Color Verifier. Refer to page 11-9 for further details on defining the delta E color space.

Define the acceptable delta E tolerance values for:

- All colors (average and peak)
- Paper white (peak)
- Each individual CMYK color channel (peak)

This setting is identical to the one made in the “Preferences” dialog in Color Verifier. Refer to page 11-5 for further details on defining tolerance limits.

Control strip for page

The color strip previously selected on the “Marks” tab of the “Layout” bar is displayed here. Refer to “Marks tab” on page 4-17 for further information on selecting control strips.

11.5.2 Job Explorer

On the “Color Verifier” bar, you can check the color accuracy of your printed file when compared with a reference. Color values evaluated in EFI Color Verifier are sent back to EFI XF and displayed on this bar. The results indicate whether the readings lie within the tolerances as defined in System Manager.

11.6 Using Color Verifier

This section describes two examples of how to use Color Verifier to obtain and verify the color accuracy of your proofs.

11.6.1 Implementing Color Verifier in EFI XF

To use Color Verifier, proceed as follows:

1. In System Manager, create and set up a workflow.



The following steps describe only the settings that are concerned with verifying color accuracy. You can, of course, make additional settings to suit your own particular workflow requirements.

2. On the “Marks” tab of the “Layout” bar:

- From the drop-down list box “Edit marks for”, select “Page”.
- Select “Print control strip” and choose a control strip from the drop-down list box. It is recommended that you use a control strip, as it serves as the basis for verifying color accuracy.
- Select the check box “Color management in control strip”.

Refer to page 4-17 if you require further information.

3. On the “Color Verifier” bar:

- Select the check box “Use Color Verifier”.
- If you are comparing proof-to-profile, select “Compare measurement with reference profile” from the drop-down list box. Otherwise, choose “None”.
- Make the required settings for delta E.
- If you selected a control strip on the “Marks” tab, make sure that it is displayed here.

Refer to page 11-11 if you require further information.

4. On the "Output" bar:

Select the check box "Create EFI Remoteproof Container"



This setting is only necessary if you wish to save your job settings and color measurement results in a single file. For example, you should create an EFI Remoteproof Container if you want to print the same print job at two different locations and need to ensure that color consistency is maintained.

Files pertaining to EFI Remoteproof Containers are saved by default to the folder EFI\...\Server\Remote\Out, but you can select a different location by clicking "Choose".

5. In Job Explorer, load a print job. The job is processed and printed out according to the workflow settings. After output, the job file is automatically submitted to Color Verifier.
6. Start EFI Color Verifier. The printed job is displayed on the "Job List/Preview" tab.
7. Double-click on the job in the job list.



If you selected to compare your color results with those defined by a profile, the color values of the profile will be automatically displayed as M1 values.

8. Measure the control strip printed on the proof you have just printed.

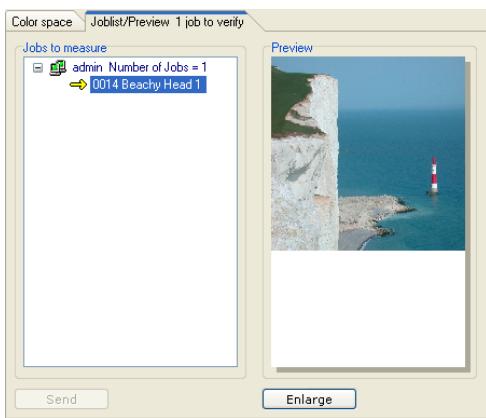
You will find instructions on how to connect and measure with an ES-1000 measuring device in "ES-1000" on page 11-15.



Remember to place your proof on a sheet of blank white paper before measuring. This prevents a colored surface shimmering through the printout and affecting the color measurements.

Please note that the measuring method is automatically set to "Multi" at this point to enable you to measure the control strip. If you have previously selected "Single", this will be overridden.

- If you are comparing profile-to-proof, the measured results are displayed in the M2 table and the results of the comparison are displayed in the "Results" area.
- If you are comparing proof-to-proof, proof-to-print or print-to-print, the measured results are displayed in the M1 table. You now need to measure the second proof or print. The second set of measured results is displayed in the M2 table and the results of the comparison are displayed in the "Results" area.



9. Click "Send" to transmit the results back to EFI XF. The results of the color comparison are displayed on the "Color Verifier" bar of Job Explorer. The results show not only the measured values but also whether they are within the tolerance values defined for the workflow.

At the same time, an EFI Remoteproof Container with the extension RPF is created in the folder previously defined for the workflow. This file contains all the information required to enable other users at remote locations to create a color-accurate replica of your original printout.

If you have received an RPF file from a customer, proceed as follows to process and output a color-accurate reproduction of the original proof:



- Please be aware that the most accurate results are achieved if you use the same printer model and media that were used to create the original proof. Color accuracy is further enhanced if both printers are optimally calibrated.
- The RPF file contains all the settings necessary for color management, e.g. spot color tables and source and simulation profiles (but no 3cc or media profiles).

1. Load the RPF file in EFI XF. Make sure that you use a workflow for which the setting "Use color management settings of the remote job" has been activated. After output, the job file is automatically submitted to EFI Color Verifier.

In Color Verifier, the printed job is displayed on the "Job List/Preview" tab. The color values saved to the JDF file contained in the RPF file are displayed as the M1 values.

2. Measure the control strip printed on the proof you have just printed. The measured readings are displayed in the M2 table.

The results of the comparison are displayed in the "Results" area.

3. Click "Send" to transmit the results back to EFI XF. The results of the color comparison are displayed on the "Color Verifier" bar of Job Explorer.

At the same time, the EFI Remoteproof Container is updated to include the new measurement data and saved to the folder .EFI\...\Server\Remote\Out.

11.7 ES-1000

11.7.1 Connecting the ES-1000

To connect the ES-1000, proceed as follows:

1. Insert one end of the USB cable into the USB interface on the back of the ES-1000.
2. Insert the other end of the USB cable into a free USB port on your computer or to a USB hub that features a separate power supply. Your system detects that a new hardware device has been connected.
3. Follow the on-screen instructions to install the device driver.

Refer to “How to measure with ES-1000” on page 11-15 for further information on how to use your measuring device.

11.7.2 How to measure with ES-1000

This section describes how to obtain color measurements using the ES-1000 measuring device shipped with Color Verifier.

For this exercise, you require a proof printed with a control strip.



It is only possible to measure control strips that are supported by Color Verifier.

Proceed as follows:

1. Make sure that the ES-1000 is properly connected to your computer.
2. Place the ES-1000 on the calibration plate.
3. Start Color Verifier and check that “Connected” is displayed in the lower right of the program window.



If an error message appears, check the cable connections. Then, from the “Preferences” menu, choose “Measuring device” and select your measuring device from the list. Finally, in the program window, click “Connect”.

4. Open the “Preferences” dialog and select “Multi” as the measuring method.
5. Select the control strip printed on your proof from the drop-down list box.
6. Close the “Preferences” dialog.
7. Place your proof on a sheet of blank white paper. This prevents a colored surface shimmering through the printout and affecting the color measurements.
8. Place the scanning ruler on your proof so that the metal rod is facing away from you and the open slit is placed directly over the control strip.
9. Click “Calibrate”. Color Verifier displays “Calibrated” when your measuring device is ready for measuring.

10. Measure the colors in your proof, as follows:

Place the measuring lamp of the ES-1000 in the open slit of the scanning ruler so that it is slightly to the left or right of the control strip.

Hold down the button on the left side of the ES-1000.



Do not release the button until the measuring process has been completed. If you let go of the button, the measuring process will be aborted.

Move the ES-1000 smoothly and at an even pace from one side of the color strip to the other. When the control strip has been successfully measured, the readings are automatically displayed in Color Verifier.



If you select the measuring method "Single" to measure individual colors patches, place the ES-1000 on the point in your proof whose color value you wish to determine. Then press and release the button on the left side of the measuring device. The color reading is automatically displayed in Color Verifier.

11.7.3 Safety instructions

The following safety instructions must be observed to avoid risk to the operator:

- Do not use the ES-1000 in environments where explosion hazards exist.
- Do not subject the ES-1000 to strong electromagnetic radiation.
- Do not use the ES-1000 in environments with temperatures in excess of 40°C or less than 10°C.
- Do not try to dismantle the ES-1000 for any reason. Unauthorized dismantling of the equipment will void any warranty claims.
- Do not store the ES-1000 in environments with temperatures in excess of 70°C or less than -20°C.
- Do not spill liquids on the ES-1000.
- Do not drop the ES-1000 in liquids.

The following warnings must be observed when operating the ES-1000. Failure to heed these warnings can cause damage to the equipment.

- The ES-1000 should be used on a stable surface, and should not be exposed to sunlight or moisture.
- The ES-1000 must be protected from chemical agents, corrosive vapors, strong vibration and mechanical impact.
- Use original accessories and spare parts only.

11.7.4 Maintenance

The following warnings should be observed in your day-to-day handling of the ES-1000. Failure to do so may result in data loss and operating anomalies.

- The plastic housing of the ES-1000 may be cleaned with soap and water on a damp cloth.
- The ES-1000 must be transported in its original packing to avoid damage.
- Clean the white ceramic tile with isopropyl alcohol on a soft clean cloth.

11.7.5 Service

It is important that you observe the following:

- Do not try to dismantle the ES-1000 for any reason. Unauthorized dismantling of the equipment will void all warranty claims.
- The measuring lamp in your ES-1000 should only be replaced by a trained service engineer at a certified service center.
- If you experience problems whilst using your ES-1000 that you cannot resolve with the information in this manual, please contact EFI Support. Refer to "EFI Support" on page 18-10 for further information.

11.7.6 Declaration of conformity

The undersigned, representing the following manufacturer,

Gretag-Macbeth AG
Althardstrasse 70
CH-8105 Regensdorf

herewith declares that the product

ES-1000™

is in conformity with the provisions of the following EC directives (including all applicable amendments)

EN 61326-1 (1997) + A1 (1998) Emission
EN 61326-1 (1997) + A1 (1998) Immunity

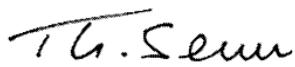
and that the standards and/or technical specifications referenced have been applied.

Last two digits of the year in which the CE marking was affixed: 01

CH-8105 Regensdorf
March 12, 2001

Th. Senn
Vice President

Th. Kunz
Program Manager Color Management



11.7.7 Warranty conditions

EFI warrants this product against defects in material and workmanship for a period of twenty-four (24) months from the date of sale, if not specified otherwise. During such time EFI will either replace or repair at its discretion defective parts free of charge. (Consumable parts are not covered.)

This warranty shall not apply to any goods supplied hereunder which after shipment are damaged, altered in any respect, or subjected to negligent treatment.

EFI's sole and exclusive obligation for breach of the above warranties shall be the repair or replacement of any part, without charge, which within the warranty period is proven to EFI's reasonable satisfaction to have been defective.

Repairs or replacement by EFI shall not revive an otherwise expired warranty, nor shall the same extend the duration of a warranty.

EFI shall in no event be liable for losses or costs to Buyer in manufacturing, or for Buyer's overhead, other expenses, lost profits, goodwill, or any other special, indirect, consequential, incidental or other damages to persons or property resulting from a breach of any of the foregoing warranties.

There are no other warranties, either express or implied, which extend beyond the warranties set forth herein. The express warranties contained herein are in lieu of all other warranties, express or implied, including, but not limited to, the implied warranty of merchantability and fitness for a particular purpose or application. No representations or statements not expressly set forth herein shall be binding upon EFI as a warranty or otherwise.

To obtain warranty service, you must take the Product, or deliver the Product freight pre-paid, in either its original packaging or packaging affording an equal degree of protection, to an authorized EFI branch office. Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

11.7.8 ES-1000 Warranty/Repair Form

Warranty Claim

Repair Order

Serial number: Date of sale:

Error description:
.....
.....
.....

User's name and address:
.....
.....
.....

E-mail address:

Town/Date

Signature

12 Color Editor

Color Editor is available as an add-on module. This chapter describes how to use the software to create and manage your spot colors.

12.1 What is Color Editor?

Color Editor was developed to ensure that spot colors in your print jobs are correctly processed.

A spot color is a specially mixed ink that is applied on the printing press, as opposed to a mix of CMYK inks which make up process printing. Spot colors can be produced in a much more vibrant range of colors than can be created from mixing process colors. As an example, they are often used to print company logos.

Many different companies produce spot colors, together with a set of swatch books that show printed examples of these colors.

Color Editor manages spot colors in two different tables:

- an internal table, which ensures the reproduction of predefined spot colors from different manufacturers .



It is important to make sure that the spot color names used in your job files exactly match those saved in the internal table. Otherwise they will not be recognized.

- an external table, which contains spot color definitions in CMYK(OG) and L*a*b* format. Only external spot color tables can be edited in EFI XF. The file extension of spot color tables is BCT.

Before spot colors in print jobs can be output as spot colors, they must first be defined in Color Editor and saved in a spot color table. When the spot color table is loaded in EFI XF, those spot colors are automatically processed correctly.

12.2 Spot color settings in EFI XF

If you have purchased Spot Color Option as an add-on module, the program windows System Manager and Job Explorer are extended as follows:

- a program icon appears in the toolbar
- an additional tab “Spot Colors” appears in the “Color” bar of property inspector



12.2.1 System Manager

12.2.1.1 Input bar

The following workflow setting is available on the "PS/PDF" tab:

In-RIP Separation

If your print job already contains RIP settings, e.g. from an external RIP or from a DTP program, you can choose whether these will be applied.

Select "Disable" to print all composite or in-RIP separated jobs as composite files. Separated files will still be processed as separated.

Select "Enable" to apply all available in-RIP information to print jobs. If no such information is detected in the print job, files are automatically output as composite.



PostScript files must contain not only details about color separations (process colors and spot colors), they also require start code information. This start code may be missing from PostScript files created by certain types of RIPs. In this case, the in-RIP information cannot be properly interpreted and the file will be output as composite.

If you select "Force", all files are processed as separated files.

12.2.1.2 Color bar

The following workflow settings are available on the "Spot Colors" tab:

Spot Colors

Select a spot color table that contains your previously defined spot colors from the drop-down list box. Spot color tables must be saved to the following folder:
...\\Server\\Profiles\\Spotcolor.

Search Priority

Here you define the order in which spot colors are searched for.

Spot colors can be defined in both the CMYK, CMYKOG, CMYKRGB and L*a*b* color spaces; they may also be included in the internal table. EFI XF uses the first instance of each spot color according to the specified search order.

For example, if you select the search order "L*a*b* - CMYK - Internal", EFI XF will first look to see if the spot color is defined in L*a*b* values. If so, this spot color will be used. If it is not available, EFI XF will continue to search for the spot color as a CMYK definition. Finally, if the spot color is not available in either L*a*b* or CMYK, EFI XF will search the internal spot color table.

Generally speaking, the device-independent L*a*b* color space produces the best color results, so it is recommended that you search for L*a*b*-defined spot colors first.

Replace unknown spot colors with default

Select this check box if you wish undefined spot colors to be output in a distinctive shade of orange. This makes them immediately recognizable in the printout.

12.2.2 Job Explorer

An additional tab "Spot Colors" is available on the "Color" bar.

The settings on this tab become enabled as soon as you load a job that contains spot colors, so that you can determine how they will be handled during job processing.

The available settings are identical to the workflow settings found in System Manager.

In addition, this tab identifies which colors are contained in a selected print job.

Process colors and spot colors are listed with details of whether they are known or unknown. This enables you to check whether spot colors will be processed correctly without first having to print the job.



By unchecking the check box next to a process color or spot color, you can instruct EFI XF to exclude that color from the printout.

How spot colors will be handled in EFI XF depends on the settings that have previously been made for the workflow. For example, the workflow settings may specify that unknown spot colors should be replaced with a default color.

However, to print color-accurate spot colors, they must first be defined in a spot color table.

When spot colors have been defined, the spot color table has to be selected in EFI XF. A spot color table can be applied to:

- all print jobs in a workflow. Refer to "Spot Colors" on page 12-2 for further information.
- individual print jobs. In this case, select a spot color table on this tab and click "Save" in the toolbar. The spot color table selected on this tab overrides the spot color table selected for the workflow in System Manager.



Spot color tables must be saved to ...\\Server\\Profiles\\Spotcolor. Otherwise, they cannot be selected in EFI XF.

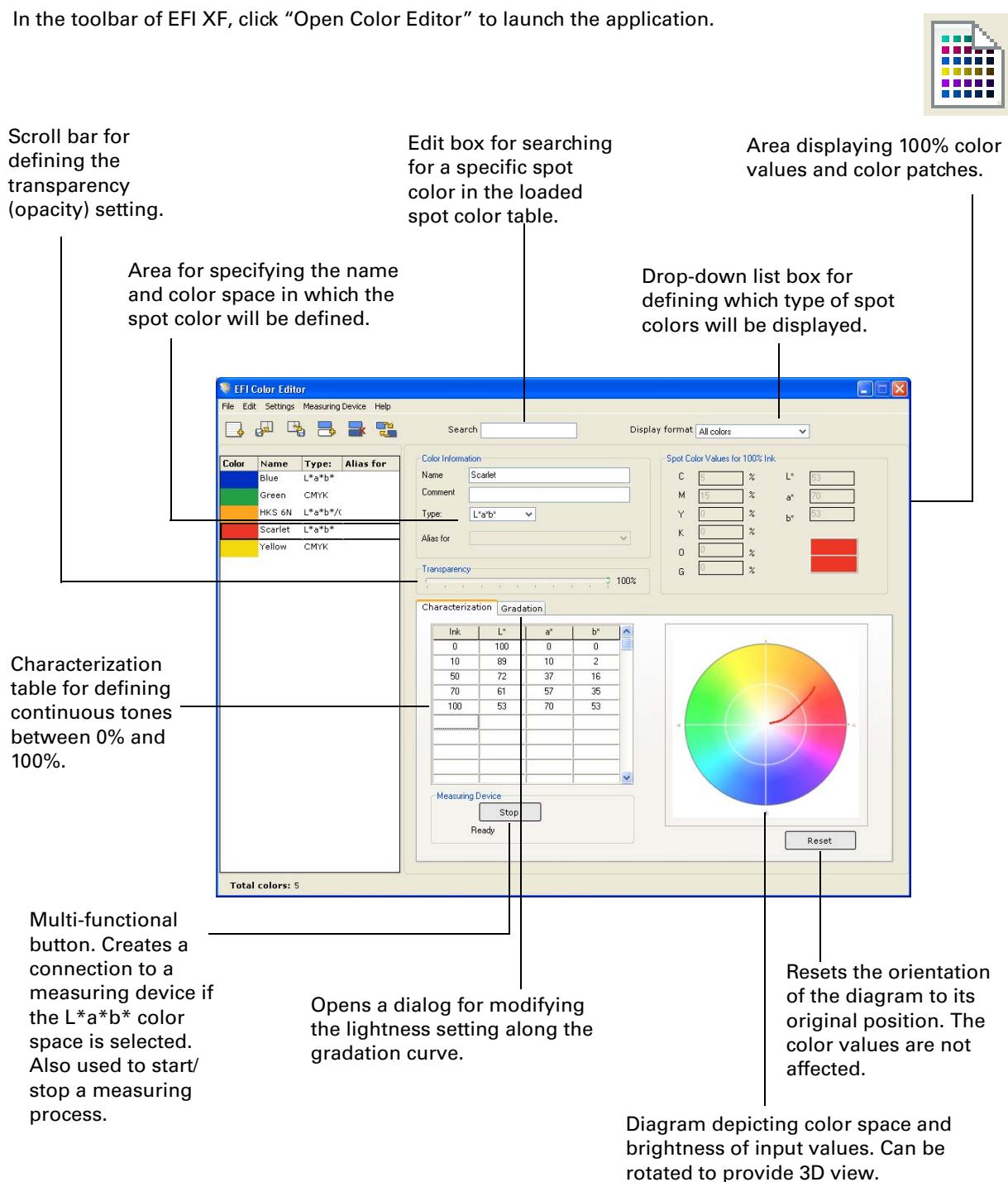
The following table illustrates how you can use different combinations of settings to influence spot color output for an individual print job.

Option	Spot Color table (System Manager)	Spot Color table (Job Explorer)	State	Description
Replace unknown spot colors with default	x		On	Spot colors defined in the table selected in Job Explorer will be printed correctly.
Spot color table	x		Selected	Spot colors defined in the table selected in System Manager will be treated as "undefined".
Spot color table		x	Selected	Undefined spot colors will be replaced with a distinctive shade of orange.
Replace unknown spot colors with default	x		On	Spot colors defined in the table selected in System Manager will be printed correctly.
Spot color table	x		Selected	Undefined spot colors will be replaced with a distinctive shade of orange.
Spot color table		x	Not selected	Not selected
Replace unknown spot colors with default	x		Off	Spot colors defined in the table selected in Job Explorer will be printed correctly.
Spot color table	x		Not selected	All other spot colors will not be recognized. During job processing, an error message will inform you that your print job contains undefined spot colors.
Spot color table		x	Selected	To print a job with undefined spot colors, uncheck the check box next to the spot color name.

Option	Spot Color table (System Manager)	Spot Color table (Job Explorer)	State	Description
Replace unknown spot colors with default	x		Off	No spot colors will be recognized. During job processing, an error message will inform you that your print job contains undefined spot colors.
Spot color table	x		Not selected	To print a job with undefined spot colors, uncheck the check box next to the spot color name.
Spot color table		x	Not selected	

12.3 User interface

In the toolbar of EFI XF, click "Open Color Editor" to launch the application.



12.3.1 Menus

The menu bar contains the following commands:

12.3.1.1 File menu

New

Choose this command to open a new spot color table.

Open

Choose this command to open a dialog, from which you can navigate to the spot color table you want to open.

Import

Choose this command to open a dialog, from which you can navigate to the spot color table you want to import, e.g. add to an already loaded spot color table.

Show Internal

Choose this command to display the integrated spot color table.

Save

Choose this command to save the changes you have made to the loaded spot color table.

Save As

Choose this command to save the changes you have made to the loaded spot color table under a new name.

Exit (Windows)/Quit EFI Color Editor (Macintosh)

Choose this command to close Color Editor.



In the Macintosh version of the software, you will find the command in the EFI Color Editor menu.

12.3.1.2 Edit menu

Add Color

Choose this command to add a new color to a spot color table. This function is also available via the context menu.

Delete Color

Choose this command to delete a selected spot color. This function is also available via the context menu.

Search and Replace

Choose this command to open a dialog in which you can search for and replace the name of a spot color. This function is also available via the context menu.

Overprint Settings

Choose this command to open a dialog for making global overprint and gamma settings that apply to all the spot colors in your spot color table.

12.3.1.3 Settings menu (Windows only)

Language (Windows only)

Choose this command to change the language in which the user interface is displayed. By default, Color Editor is displayed in the language of the operating system.



On a Macintosh, you can change the language via the international settings in "System Preferences".

Measuring Device

Color Editor supports a number of different measuring devices. Choose your measuring device from the submenu.

12.3.1.4 Help menu

Help

Choose this command to start the online Help.

About EFI Color Editor

Choose this command to open a window with details of your program version.



In the Macintosh version of the software, you will find the command in the EFI Color Editor menu.

12.3.2 Toolbar

The toolbar contains the following buttons and functions:



New
Click this button to create a new spot color table.



Open
Click this button to open an existing spot color table.



Save
Click this button to save your spot color table.



Add
Click this button to define a new spot color. This function is also available via the context menu.



Delete
Click this button to delete a spot color from the spot color table. This function is also available via the context menu.



Search and Replace
Click this button to open the "Search and Replace" dialog.. This function is also available via the context menu.

Search

Use this edit box to search for a specific spot color. Type in the name of the required color and press <Enter>.

Display format	Use this drop-down list box to select the color space(s) in which you wish to display your spot colors.
----------------	---

12.4 Defining spot colors

If EFI XF detects a spot color that has not been defined, an error message is displayed and job processing is aborted.

In order for spot colors to be processed and output correctly, they must first be defined in Color Editor.



In Job Explorer, you can check what workflow settings have been made for the treatment of spot colors. Unknown spot colors are listed in Job Explorer on the “Spot Colors” tab of the “Color” bar.

To define a spot color, proceed as follows:

1. Click “Open Color Editor” to launch Color Editor.

A dialog is displayed if spot color tables have previously been saved to EFI XF\Server\Profiles\Spotcolor. Select an existing spot color table from the list or select “-none-” to create a new spot color table. The program window opens.



Please note that it is only possible to select one spot color table for each workflow. Therefore, it is advisable to add any new spot colors to an already existing table to ensure that all spot colors are recognized.

If no spot color tables exist, a message asks you if you want to merge unknown spot colors with the selected spot color table. If you click “Yes” the “missing.tab” file is opened. This file is automatically created in the folder EFI XF\Server\Profiles\Spotcolor whenever EFI XF detects an unknown spot color. Click “No” to open an empty spot color table.



Once you have defined the new spot colors, it is advisable to delete the file “missing.tab”, as otherwise the existing file is added to, not overwritten, when new spot colors are detected. Deleting the “missing.tab” file ensures that a new one is created every time an undefined spot color is detected.

2. If you are adding a new spot color to an existing spot color table, click “Add”.

If you are creating a new spot color table, proceed directly to the next step.

3. In the edit box, type a name for your spot color. The name you define must match the name used in the application in which the file was created.
4. Add any comments, if required.

- From the drop-down list box, select the spot color type. You can choose between:

- L*a*b*
- CMYK, CMYKOG or CMYKRGB

When you select the spot color type CMYK, CMYKOG, L*a*b*/CMYK or CMYKRGB a check box "As InkJet CMYK(OG/RGB)" becomes available. Select this setting to output your spot color using the full color gamut of the connected inkjet printer, as defined by the selected media profile. If you leave this setting unchecked, your spot color will be output using the smaller color gamut of the printing press, as defined by the selected reference profile.



If you define a spot color in the CMYKOG or CMYKRGB color space, you must use the color gamut of the connected ink jet printer. This setting is enabled by default and ensures that pure orange and green or pure red, green and blue inks are used.

- L*a*b*/CMYK
- Alias

Select "Alias" if the spot color you are adding already exists under a different name. Then choose the appropriate spot color from the "Alias for" drop-down list box.

As a practical example: if you have a Pantone color whose name is not written correctly and is therefore not recognized in EFI XF, you can select "Alias" to map it to the right color. This saves you having to define it as a new color.

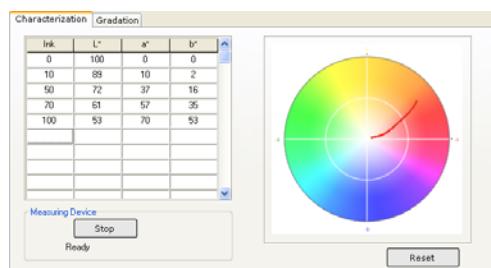
To "map" a spot color to a predefined spot color, you must first display the internal spot color table. To do so, select the appropriate command from the "Edit" menu.

- Use the slide bar to define the percentage of transparency. A setting of 0% equals 100% opacity.
- Click the "Characterization" tab. The characterization table with color values for 0% and 100% inks is displayed.
- Type in the full-tone (100%) color values of your spot color in the selected color space(s).



CMYK color codes can be purchased from your spot color manufacturer.

To obtain L*a*b* values, you may first need to measure a printed patch of the spot color using a measuring device.



You can view your spot color:

- as a color patch in the “Spot Color Values for 100% Ink” area
- in the 3D diagram



The 3D diagram depicts the 0% (white point) and the 100% value of your spot color.

By holding down the left mouse button and dragging the cursor, you can rotate the 3D diagram to assess your spot color from any chosen angle.

9. Define continuous tones for your spot color, as described in the following steps. If you do not need continuous tones, proceed directly to step 12 to save your spot color table.

10. Click the “Characterization” tab.

11. Select an empty row in the table and type the percentage of ink and the color values. Then press <Enter>.



If you are using a Macintosh, click the “+” button below the table to add a new row. To type a percentage of ink or a color value, double-click and overwrite an existing value.

If you do not know the precise continuous-tone color values for a color defined in the $L^*a^*b^*$ color space, you can use one of the supported measuring devices to measure a printed color patch of the required color.

To do this, first connect your measuring device to the USB port of your computer. Then click “Connect” and follow the on-screen instructions to calibrate your measuring device.



Make sure that the $L^*a^*b^*$ color space is selected. Otherwise the “Connect” button will not be enabled.

When your device is ready for measuring, the name of the button changes to “Ready” and the status message “Calibrated” is displayed.

Measure a color patch. The color values are automatically entered in the table.



The 0% value in the table represents the color of the media. Initially, it displays the unmeasured value for pure white. However, by following the described procedure, you can measure the $L^*a^*b^*$ values of the paper white. This enables spot color values to be converted for use with different media and ensures that color accuracy can be maintained on any color substrate.

If you are using an EFI ES-1000, Best Eye or GretagMacbeth Eye One measuring device, you will find further information in “Connecting the ES-1000” on page 11-15 and “How to measure with ES-1000” on page 11-15.

12. If necessary, repeat step 10 to define additional continuous tones.

13. Click "Save" to save your spot color table.

Spot color tables are saved by default to the following location: Server\Profiles\Spotcolor. Only spot color tables saved to this folder can be loaded in EFI XF.

When the spot color table is loaded in EFI XF, the spot colors are automatically processed correctly in your print jobs. Refer to "Spot Colors" on page 12-2 for information on loading spot color tables.

12.5 Editing spot colors

12.5.1 Modifying the gradation

In theory, the color gradation from 0% to 100% should be linear. However, in practice this is not always the case.

If you are printing your spot color at, for example, 50% and ascertain that the color is too bright or too pale in the printout, you can remedy the problem by adding or subtracting color at the 50% mark along the gradation curve.



Please note that this setting should only be performed by experienced users.

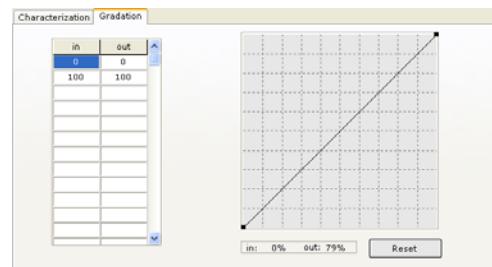
To compensate for non-linear gradations, proceed as follows:

1. Click the "Gradation" tab.
2. To modify the strength of color, click a point along the curve to define a node — the coordinates of the current cursor position are displayed below the gradation curve to help you locate the correct point.

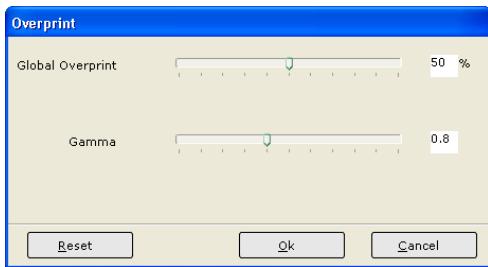
By selecting the defined node and dragging the mouse to the required position, you can influence the color. Drag the mouse upward to add more color, or downward to subtract color.

Alternatively, you can type the required coordinates directly in the table.

3. Click "Save" to save your spot color table.



12.5.2 Modifying the overprint and gamma values



In the “Overprint” dialog you can make global overprint and gamma settings. These settings apply to all L*a*b* spot colors in the spot color table.

To open the “Overprint” dialog, select Edit > Overprint Settings.

Global overprint

Use the “Global Overprint” sidebar to define how two or more colors will behave when printed on top of each other.



When printed individually, colors are unaffected by this setting.

A higher setting will result in a darker printout. For example, an overprint value of 100% means that the colors will be completely added to each other — something that is not possible on a proper printing press.

A lower setting will result in lighter printouts. This is because colors appear more opaque and hide parts of other colors.

Gamma

Use the “Gamma” sidebar to modify the dot gain simulation for overprinting spot colors. The setting is applied to areas with a mixture of spot colors and process colors or to areas consisting of more than one spot color. It lets you define non-linear behavior for overprinting.

A value of less than “1” will result in a darker output, whereas a value of greater than “1” will produce lighter colors. The default setting is 0.8.

When you have finished making your changes, click “Ok” to save your changes and close the dialog.



The settings you make for gamma and overprinting apply globally to all the colors in the selected color table. Therefore, to apply settings to specific spot colors only, you will need to create separate spot color tables.

12.5.3 Searching for and replacing spot colors

To open the “Search and Replace” dialog, select Edit > Search and Replace.

Here you can replace one spot color name with another.

Find color

Type the name of the color you wish to search for and replace.

Replace with

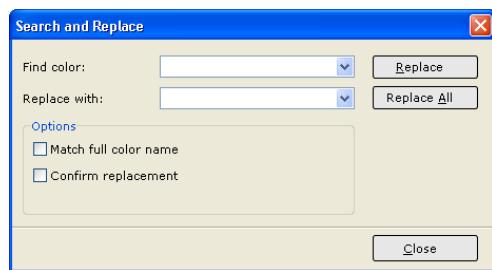
Type the new color name.

Color Editor will search for “part” names. For example, if you wish to replace the spot color name “Deep Sea Green” with “Deep Sea Blue”, you would type “Green” in the edit box “Find color” and “Blue” in the edit box “Replace with”.

To search for full color names only, select the check box “Match full color name”.

Use the buttons “Replace” or “Replace All” to rename your spot colors. If you select the check box “Confirm replacement”, a message will appear when Color Editor finds a match. To replace a color, click “Yes” in the dialog.

When you have completed making your changes, click “Close”. Then click “Save” to save your changes.



13 LinTool/Color Manager

This chapter describes how to use the software to linearize your printer and create your own media and reference profiles.

13.1 EFI linearization and profiling tools

Color reproduction is device-dependent, i.e. if you output the same file on two different devices, you will usually get two different sets of colors. Even two printers of the same model may show slight differences in their output.

To overcome this problem, the ICC (International Color Consortium) has developed a recognized standard for color management systems to allow uniform cross-device color reproduction. This standard is based on a series of profiles which control color reproduction from image creation to image output.

EFI XF provides two different tools which give you full control over the color properties of your printer and printouts.

13.1.1 What is LinTool?

LinTool is a standard component of EFI XF. This tool has been especially designed to let you linearize your printer to ensure that you obtain consistent color-accurate results from your inkjet printer at all times.

All printer linearizations that you perform with LinTool are based on color values measured and displayed in the L*a*b* color space.

With LinTool, you receive a comprehensive set of tools with which to:

- Create a base linearization for your printer
- Return the printer to its original state by modifying its color reproduction properties using a measuring device
- Return the printer to its original state by modifying its color reproduction properties by visual correction
- Optimize an ICC profile to a specific reference profile
- Modify non-linear plate characteristics of one-bit files



This tool is used to compensate for the plate characteristics of a prepress output device. Based on a visual comparison of prepress proof and the proof created on your printer, you can tweak the color of any color channel to ensure color-accurate reproduction.

You can also use the inverted calibration curve which is used in CtP and CtF RIPs.

Please note that you require a license file to use this tool and perform a visual plate compensation.

- Patch the printer linearization file to a media profile and/or Device Link profile for implementation in EFI XF.

13.1.2 What is Color Manager?

Color Manager is a profiling tool that is available as an add-on module and thus requires a special license. It supplements the LinTool feature of EFI XF and provides you with additional tools with which to:

- Create your own media profiles
- Create your own reference profiles
- Create your own Device Link profiles
- Edit the white point of a media or reference profile

13.2 System Manager settings

During program installation, a default linearization workflow and a default linearization device are created in System Manager. All print jobs that you submit from EFI LinTool/EFI Color Manager are processed via this system workflow.

The default linearization workflow ensures that no profiles are applied during printing. Thus, all linearization files processed via this workflow are non-color-managed. This is important as all the color measurements you perform during printer linearization or profiling must be based purely on the printer's own color reproduction properties.



Please note that any settings you make for the default linearization workflow will be ignored when jobs are submitted from LinTool or Color Manager.

You can, however, use this workflow perfectly normally to output other, color-managed print jobs.

Before you can launch LinTool or Color Manager, you must first set up the default linearization device for your printer. Refer to "Creating output devices" on page 5-5 for further information.

13.3 User interface

In the toolbar of EFI XF, click "Open LinTool" or "Open Color Manager" to launch the application. Then, select a tool from the start screen.

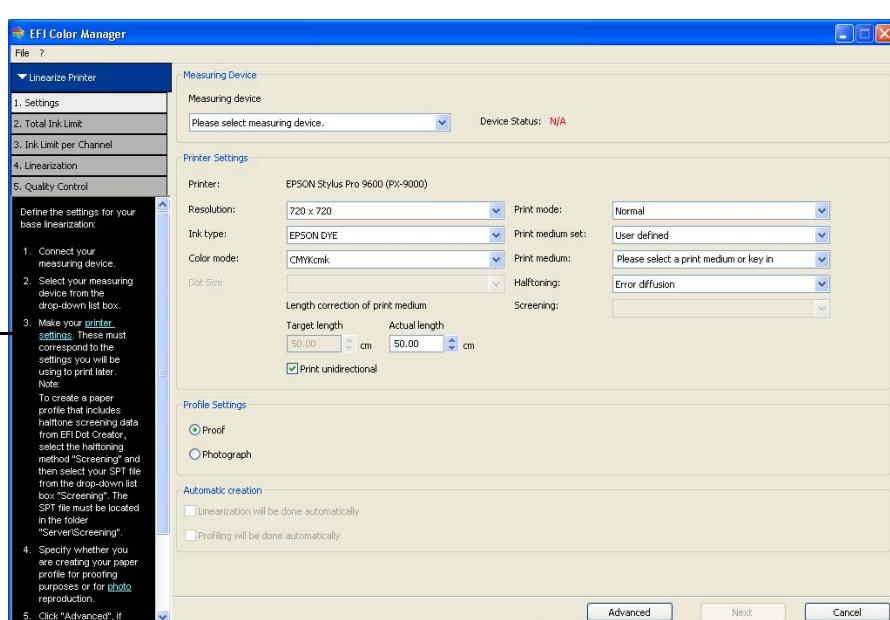
The structure of the program windows is the same for all tools. Each program window leads you step by step through the individual stages of the procedure.



The main program steps appear in each dialog. The colors of the buttons indicate what stage of the procedure you have reached, as follows:

Blue	Indicates the current tool and completed steps.
White	Indicates the current step.
Gray	Indicates steps that have not yet been performed.

Hyperlinks are _____ integrated into the Wizard text. Click on these to reveal additional information pertinent to the current step.



The Wizard area leads you step by step through the actions to be performed in each dialog.

The software will not allow you to proceed to the next dialog until you have successfully completed all the steps in the current dialog.

You may, however, return to previous dialogs to make changes or check your settings. In this case, you must repeat all the subsequent steps in the procedure.

Advanced dialogs are available for some steps. These are not essential but are available for experienced users who wish to finetune certain settings.

13.3.1 Menus

File menu

This menu contains commands for loading or saving files (e.g. a media profile, a base linearization, the measurements of an IT8 chart or a visual correction file) pertaining to the current step.

With the "Close" command you exit EFI Color Manager.

? menu (Windows) EFI Color Manager menu (Macintosh)

This menu contains the command "About". It displays information about which version of Color Manager you are using.

13.4 How does color management in EFI XF work?

13.4.1 Profiles

To obtain color-accurate printouts in accordance with the ICC standard, EFI XF uses two output profiles — a media profile and a simulation (reference) profile.

13.4.1.1 Media profiles

The media profile describes the color reproduction properties of the printer model you are using, based on the type of media, the type of ink and the resolution settings on your printer.

When you select a particular type of media, resolution and ink, EFI XF automatically chooses the correct media profile for these settings.

13.4.1.2 Simulation (reference) profiles

The simulation profile describes the color reproduction properties of the printing machine you wish to simulate on your inkjet printer. A set of generic profiles is provided with your software.

13.4.2 Linearizations

13.4.2.1 Base linearization

A base linearization forms the basis for the media profile. It contains details of the quantities of color, under which the media profile was created, i.e. the color values necessary to achieve the maximum density of color while, at the same time, using as little ink as possible.

The base linearization determines the physical characteristics of how ink and media work together and optimizes these characteristics for profiling.

A base linearization is assigned ("patched") to each media profile and is loaded automatically with the media profile.

A set of generic base linearization files is provided with your software.

13.4.2.2 Printer re-linearization

The color reproduction of your printer may change over a period of time. Performing a printer re-linearization enables you to re-adjust the color densities and return the printer to the original state used to generate the media profile.

A printer re-linearization can be performed using a measuring device (spectrophotometer) or visually. However, whereas a measuring device produces exact results, a visual printer re-linearization is based purely on manual adjustments and should therefore only be performed as an emergency measure by experienced users.

13.5 Working with LinTool/Color Manager

13.5.1 When to perform a printer re-linearization

You will need to perform a printer re-linearization in the following instances:

- If you are using a media profile that was not created on your exact printer, e.g. the media profiles provided with EFI XF for your printer model. Even mass-produced printers of the same model display slightly different color properties which may result in certain color deviances. These deviances can be corrected by performing a printer re-linearization. Performing a printer re-linearization ensures that the color reproduction of your particular printer matches that of the reference printer used to create the base linearization and media profile.
- After changing the print head. Replacing printer parts can affect the color properties of your printer.
- If you notice that your proofs no longer match earlier proof results. Performing a printer re-linearization ensures that the color reproduction of your printer remains constant.

As a general rule of thumb, it is a good idea to perform a printer re-linearization approximately every two weeks.

13.5.2 Tips

The following tips are intended to help you when working with LinTool/Color Manager:

Printing charts	When printing linearization charts, make sure that the setting "Do not scale" is selected. It is essential that all linearization charts are printed in their original size in order to avoid problems when measuring the charts later on.
Media size	Make sure that you use at least an A3 sized substrate (11 x 17 inches). This size is required to print the linearization charts.

Printing to a file format	When printing to a file format is selected, the tools "Create media profile" and "Re-linearization by measurement" are not available. If you are using the measuring device DTP41T, you will require an A1 sized substrate (23 x 33 inches) to print the charts.
Best Eye, ES-1000, eye-one	If you are using one of these measuring devices, it is important that you use the scanning ruler to ensure a 2 mm gap between measuring lamp and media.
Use of different measuring devices	It is not possible to edit a base linearization that was originally created with a different measuring device. If an error message to this effect appears, you will need to create a new base linearization.
Creating visual linearization and plate compensation files	When Server and Client are installed on different computers, you can save the correction files to any location. However, in order to load them in EFI XF, you must first copy them to the following folder: Server\Profiles\Balance.
X-Rite DTP 20	This measuring device has to be calibrated before use by measuring a so-called TID measuring strip. If you are measuring the Ugra/Fogra media wedge, you have to print the TID measuring strip separately. You will find the file "TIDforMKW20XP-V2.tiff" in the folder "Tools".

14 OneBit Option

The OneBit Option is available as an add-on module. This chapter describes how to use the software to print one-bit files and so achieve color-accurate contract screen proofs.

14.1 What is the OneBit Option?

The OneBit Option was developed to enable you to process one-bit files that have been produced by an imagesetter, a platesetter or a digital print solution in the pre-press industry.

To create one-bit files, these output devices have an integrated RIP which converts PostScript and PDF files into screen dots. The screen dot information is saved in the form of one-bit TIFF files — one file for each color separation.

Since these files have already been RIPed once by an external RIP, the integrated RIP of EFI XF is not applied during one-bit-file processing. The necessary screen information (e.g. screen dot shape and size, screen ruling) is simply extracted from the one-bit file when the digital proof is printed.

Therefore, digital proofs that are output with the OneBit Option are not only color accurate, but also give a true screen representation of the final print run.

This makes the OneBit Option an ideal tool with which to check, for example, for possible moiré patterns or rosettes.



It is recommended that you do not use a laser printer to output one-bit files. This is because of the different screening methods. Applying both laser screening and one-bit screening to a print job makes it impossible to create high-quality proofs. Laser printers are, therefore, only suitable for creating imposition proofs.

14.2 OneBit Option settings

If you have a license file for the OneBit Option, EFI XF is extended as follows:

- In System Manager and in Job Explorer, an additional tab becomes available on the Input bar.

14.2.1 System Manager

The following settings are available on the “One-bit” tab to define how incoming one-bit files will be handled in the workflow:

Waiting time for job completion

This setting defines the time span, during which EFI XF waits for incoming one-bit files that belong to a particular print job. Once this time span has elapsed, the software assumes that all one-bit files have been received and starts printing.

Number of one-bit files in a job

This setting defines the number of one-bit files that belong to a particular job. EFI XF waits until the defined number of color separations has been received before completing the print job.

This prevents jobs from being automatically printed as soon as the time-out period has elapsed, but before all the one-bit files have been received.

Similarly, it also ensures that printing will commence as soon as all one-bit files have been received, thus avoiding unnecessary idle time.

Sub-directory for each job

This setting defines whether you want a sub-directory to be created for each job. You must select this option if your one-bit files were created by a RIP solution that automatically generates sub-directories for saving one-bit files.

File name contains the name of the color separations

This setting ensures that EFI XF correctly recognizes the job name and all color separations that belong to each print job.

Select from the drop-down list box the file naming convention used by the RIP solution that created the one-bit files. Alternatively, you can type in your own variable. Make sure that you choose a syntax that is generic for all the files that you want to process.



By default, EFI XF analyzes file names from right to left, whereby the file extension is not taken into account.

The available character strings contain the following variables:

%j	This variable represents the job name.
%c	This variable represents the name of the color separation.
%f	This variable stands for "ignore". It is most often used to instruct EFI XF to ignore consecutive numbers (e.g. film numbers) which are automatically added to the file name by some RIP solutions. By inserting a figure, you can define the number of characters to be ignored, e.g. %4f.

For example, you might have two one-bit jobs, as follows:

```
1357_bestbrochure_(cyan).tif  
1358_bestbrochure_(magenta).tif  
1359_bestbrochure_(yellow).tif  
1360_bestbrochure_(black).tif  
  
01_efiflyer_(cyan).tif  
02_efiflyer_(magenta).tif  
03_efiflyer_(yellow).tif  
04_efiflyer_(black).tif
```

In this case, you would type the file name syntax "%f_%j_(%c).tif" from the list box.

This instructs EFI XF to:

- Process files which use an underscore as the separator
- Process files whose color separation names are set in parenthesis
- Ignore all characters in the file name to the first underscore (when read from right to left)

Analyze file name from left to right

By default, EFI XF analyzes file names from right to left. However, in some cases it may be preferable to read file names from the left.

For example, you might have two one-bit jobs, as follows:

```
bestbrochure-(cyan)-00157.tif  
bestbrochure-(magenta)-00158.tif  
bestbrochure-(yellow)-00159.tif  
bestbrochure-(black)-00160.tif  
  
efiflyer-(cyan)-01-00.tif  
efiflyer-(magenta)-02-00.tif  
efiflyer-(yellow)-03-00.tif  
efiflyer-(black)-04-00.tif
```

In this case, you would type the file name syntax "%j-(%c)-%5f.tif" from the list box.

This instructs EFI XF to:

- Process files whose job name is separated from the name of the color separation by a dash
- Process files whose color separation names are set in parenthesis
- Ignore all characters in the file name after the second dash (when read from left to right)

Extract color separation from file header

If you select this setting, the color information is extracted from the file header (information contained in the one-bit file itself) instead of from the file name of the one-bit file.

This setting is useful if the individual color separations cannot be identified in the name of the one-bit files — some RIP devices do not save the color separation as part of the file name.



If you are using the Macintosh version of EFI XF, you may find that the file name is truncated at 32 characters, making it impossible to identify the color separation. In this case, using this setting may be a convenient way to get round the problem. Alternatively, you can rename the files before loading in EFI XF.

Imposition proof

Select this radio button if you want to make a final check before going to press.



Please note that imposition proofs are not color accurate. This setting should, therefore, be used only to check the content and completeness of the elements of the printing copy.

Contract proof

Select this radio button to create a color-accurate screen proof.



Contract proofs are color managed. For this reason, they are often seen as a binding color contract between customer and printing house. A contract proof is usually the final proof created before going to press.

Contract proof - sharpest dots

Select this radio button to create a color-accurate screen proof.



As speed is an important factor, the print quality is slightly lower than that of a standard contract proof.

Plate compensation

In LinTool/Color Manager you can modify non-linear plate characteristics of one-bit files. Based on a visual comparison of prepress proof and the proof created on the printer, you can tweak the color of any color channel to ensure color-accurate reproduction.

If you have created a plate compensation file using either LinTool or Color Manager, click “Select” and navigate to the “Working” folder.

14.2.2 Job Explorer

The “One-bit” tab displays the workflow settings made in System Manager. In Job Explorer you can choose a job-specific proofing method or apply a different plate compensation file from the one selected for the workflow.

15 Dot Creator

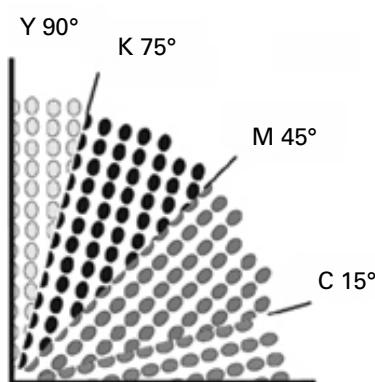
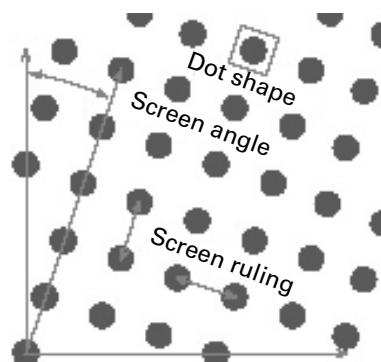
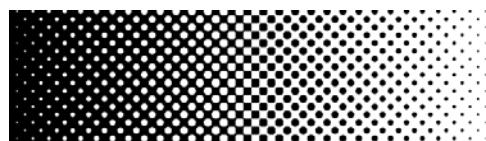
Dot Creator is available as an add-on module. This chapter describes how to use the software to create halftone screens from continuous-tone data.

15.1 What is Dot Creator?

Dot Creator was developed to enable you to create and output CMYK halftone screens from continuous-tone data.

Continuous-tones are difficult to output satisfactorily on conventional printing presses. This is because, unlike photography, differences in lightness cannot be directly reproduced in offset printing. Printed paper either has color or it does not. It is not possible to print "just a little color".

Halftone screening is the name of the process used to overcome this problem. Here, color is represented by rows of dots, whereby the size of each dot and the distance between them can be varied to depict different color densities. The larger the dots and the closer the distance between them, the darker the reproduced color tone.



One halftone screen is created for each of the four process colors cyan, magenta, yellow and black. Light inks are not supported. Each halftone screen is then rotated and printed at a different angle to prevent moiré patterns appearing. The usual print order is: cyan, magenta, yellow, black.

Moiré patterns can occur if two halftone screens with only slightly different screen rulings are superimposed or if they are rotated by only slightly different angles. The screen angles C 15°, M 45°, K 75° and Y 90° or 0° produce the best results.

EFI Dot Creator provides settings for defining screen ruling, screen angle and dot shape for each color channel as well as a feature for automatic prevention of moiré effects.

15.2 User interface

In the toolbar of EFI XF, click "Open Dot Creator" to launch the application.

List of printers supported in EFI XF.

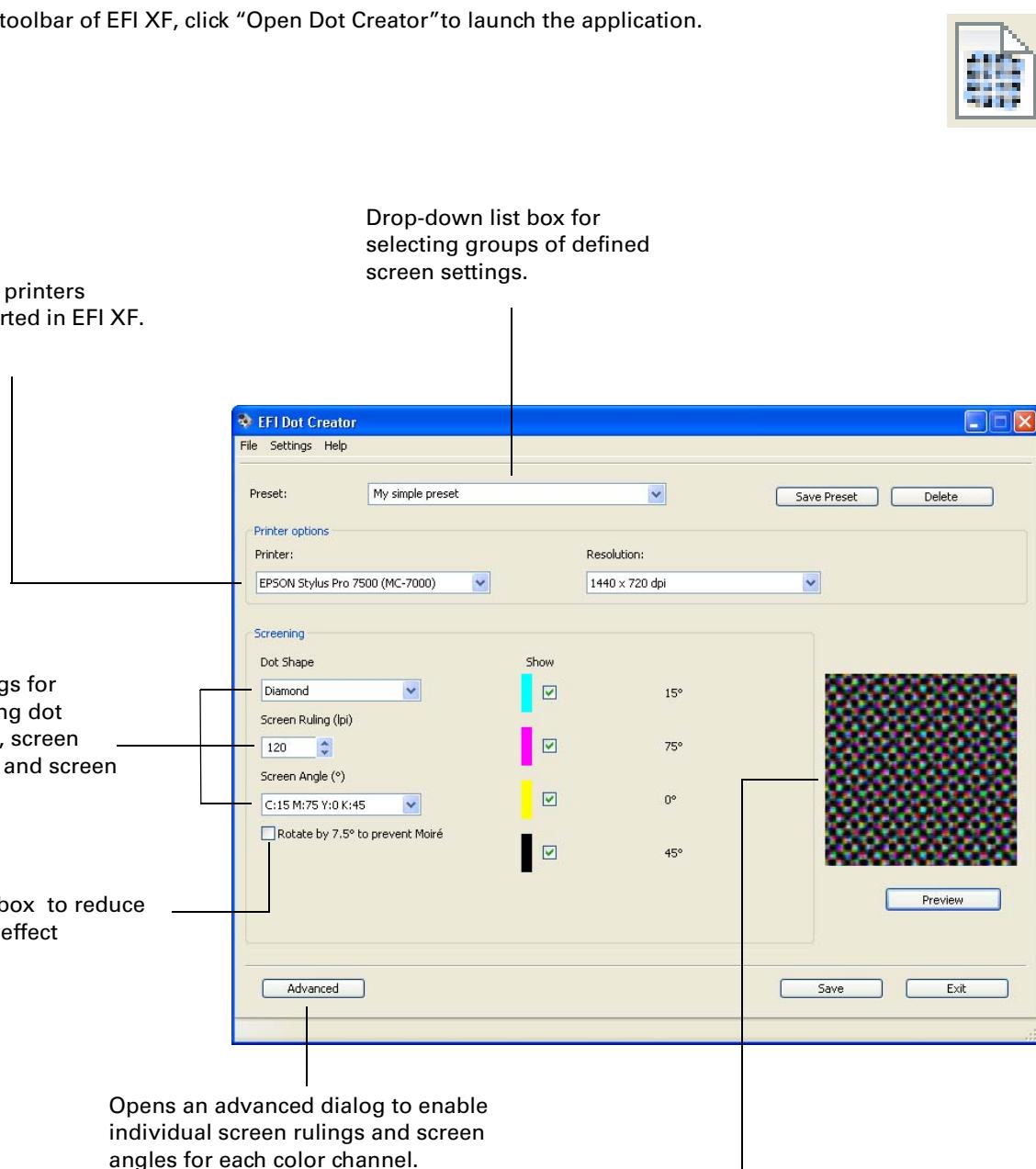
Drop-down list box for selecting groups of defined screen settings.

Settings for defining dot shape, screen ruling and screen angle.

check box to reduce moiré effect

Opens an advanced dialog to enable individual screen rulings and screen angles for each color channel.

Preview of the halftone screen, based on the settings made.



15.2.1 Menus

The menu bar contains the following commands:

15.2.1.1 File menu

Load SPT file

Choose this command to load a previously saved SPT file with screening and resolution settings.

Preview

Choose this command to create a preview of the screen settings.

Save

Choose this command to save the screen settings you have made in EFI Dot Creator.

Save As

Choose this command to save the changes you have made under a new name.

Exit (Windows)/Quit EFI Dot Creator (Macintosh)

Choose this command to close EFI Dot Creator.



In the Macintosh version of the software, you will find the command in the EFI Dot Creator menu.

15.2.1.2 Settings menu (Windows only)

Language

Choose this command to change the language in which the user interface is displayed. By default, Dot Creator is displayed in the language of the operating system.



- On a Macintosh, you can change the language via the international settings in "System Preferences".
- Please note that to display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports 2-byte fonts.

15.2.1.3 Help menu

Help

Choose this command to start the online Help.

About EFI Dot Creator (Windows only)

Choose this command to open a window with details of your program version.

15.3 Additional settings in EFI XF

If you have a license file for Dot Creator, EFI XF is extended as follows:

- a program icon appears in the toolbar
- In EFI LinTool or EFI Color Manager:
In the program window for creating a base linearization, an additional drop-down list box becomes available when you select the halftoning mode "Screening". This drop-down list box contains all the halftone screening files that have been created in EFI Dot Creator for the printer and resolution selected on this tab.
- If you have a license file for the Spot Color Option:
In the Job Explorer, an additional column "Screening of" is added to the "Spot Colors" tab in the Property Inspector for color settings. It is displayed when "Grayed separations" is selected from the drop-down list box on the "Print" tab of the "Layout" bar and shows which screen angle will be used for each color. The default setting for spot colors is black, but you can select the screen angle of any other process color from the appropriate drop-down list box.



This setting is useful if you are outputting separated gray films on a transparent media.



Spot Colors			
	Name	Known	Screening of
<input checked="" type="checkbox"/>	Black	Yes	Black
<input checked="" type="checkbox"/>	Metallic Gold	No	Black
			Cyan
			Magenta
			Yellow
			Black

15.4 Creating halftone screens

EFI Dot Creator provides you with three industry-standard settings for screen angles:

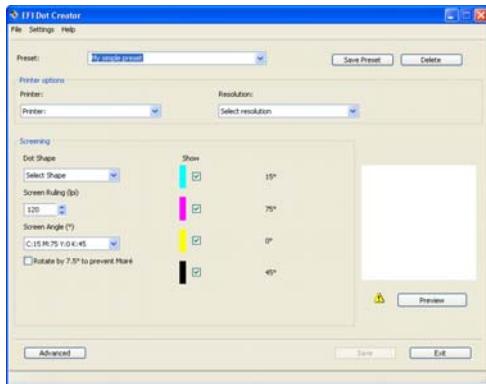
- C=15, M=75, Y=0, K=45
- C=8, M=51.5, Y=27, K=75
- C=18.4, M=71.6, Y=0, K=45

You can create halftone screens based on one of these settings or, alternatively, define your own customized screen angles for each color channel.

Refer to the sections below to create halftone screens.

15.4.1 Halftone screens using predefined screen angles

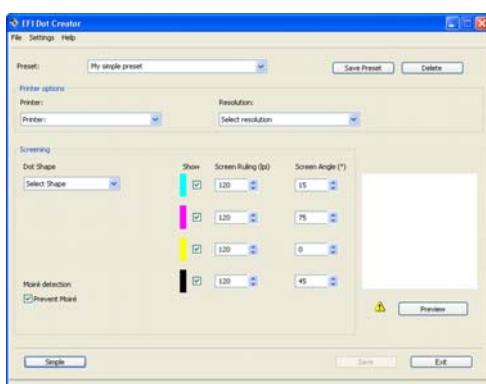
Proceed as follows to create a halftone screen based on predefined screen angles:



1. Start EFI Dot Creator.
2. From the drop-down list box, select your printer.
3. From the drop-down list box, select a resolution .
4. From the drop-down list box, choose one of the following dot shapes: round, diamond, square, line, ellipse.
5. Select a screen ruling and a screen angle.
6. Select the check box "Rotate by 7.5° to prevent moiré" if you want to rotate all screen angles by 7.5° counter-clockwise. This setting simulates the screen angles commonly used in flexographic printing.
7. Click "Preview" to display a preview.
8. In the edit box "Preset", define a name for your settings and click "Save Preset". The group of settings becomes available for selection from the drop-down list box "Preset".
9. Click "Save" to create an SPT file and save your settings to the "Screening" folder. The SPT file contains the defined screening and resolution settings. It can be loaded in Color Manager. Refer to "Implementing halftone screens in EFI XF" on page 15-6 for further information.

15.4.2 Halftone screens using customized screen angles

Proceed as follows to create a halftone screen based on self-defined screen angles:



1. Start EFI Dot Creator.
2. Click the "Advanced" button to open the "Advanced" dialog.
3. From the drop-down list box, select your printer.
4. From the drop-down list box, select a resolution.
5. From the drop-down list box, choose one of the following dot shapes: round, diamond, square, line, ellipse.
6. Type a screen ruling and a screen angle for each process color.
7. Select the check box "Prevent moiré", if required. When this feature is selected, EFI Dot Creator assesses the risk of moiré patterns and modifies the settings accordingly.
8. Click "Preview" to display a preview. You can determine whether all or selected colors are previewed by selecting the appropriate check boxes in the column "Show".
9. In the edit box "Preset", define a name for your settings and click "Save Preset". The group of settings becomes available for selection from the drop-down list box "Preset".

10. Click "Save" to create an SPT file and save your settings to the "Screening" folder. The SPT file consists of the defined Ipi value and the set resolution. It can be loaded in Color Manager. Refer to "Implementing halftone screens in EFI XF" on page 15-6 for further information.

15.5 Implementing halftone screens in EFI XF

To implement halftone screens in an EFI XF workflow, proceed as follows:

1. Start Dot Creator. Create and save a halftone screen file, as described in "Creating halftone screens" on page 15-4.
2. Start Color Manager.



The following steps describe how to create a media profile using Color Manager. If you do not have a license for Color Manager, you can create a media profile using any third-party profiling software. After creating, proceed with step 11 to patch the media profile to the EPL linearization file using LinTool.

3. Start the tool "Create Base Linearization".
4. Connect a measuring device.
5. In the "Settings" dialog, select the resolution you used to create your halftone screen file.
6. Make sure that "CMYK" is selected as the color mode. Otherwise you will not be able to select a halftone screening file.
7. From the drop-down list box "Media" select a media type.
8. From the drop-down list box "Halftoning" select "Screening".
9. From the drop-down list box "Screening" select the halftone screen file.

All halftone screen files created in Dot Creator are saved to the folder "Server\Screening". In EFI XF, all halftone screen files for the selected resolution are automatically available from the drop-down list box.



The following steps describe how to create a media profile using Color Manager. If you do not have a license for Color Manager, you can create a media profile using any third-party profiling software. After creating, proceed with step 11 to patch the media profile to the EPL linearization file using LinTool.

10. Follow the on-line instructions given in the wizard to create a base linearization for your printer.
11. Create a media profile, based on the base linearization.

12. Start the tool “Profile Connector”.



“Profile Connector” is a utility provided with both LinTool and Color Manager.

13. Follow the on-line instructions given in the wizard to patch your media profile and EPL linearization file.

14. Start EFI XF and open System Manager.

15. Highlight your output device and select the “Quality” tab in the Property Inspector.

16. From the drop-down list box “EFI Calibration Set”, select the epl you patched to the media profile. The screening file you created in Dot Creator is displayed in the properties list.

17. Complete your workflow settings.

All your print jobs will now be output at the defined screen angles. Halftone screens can be applied to all jobs except one-bit files.

You can check which screen angles are applied in Job Explorer. The “Spot Colors” tab of the “Color” bar displays all the detected process and spot colors of a selected print job. Refer to “Additional settings in EFI XF” on page 15-4 for further information.

By default, the screen angle for black is applied to spot colors. However, you can change the screen angle of spot colors, if required, by highlighting the displayed process color in the “Screening of” column and choosing a different color from the drop-down list box. The screen angle of the selected process color is then applied.

16 File Output Option/Gravure Output Option

These options are available as add-on modules. This chapter describes how to use the software to print to file.

16.1 Printing-to-file options

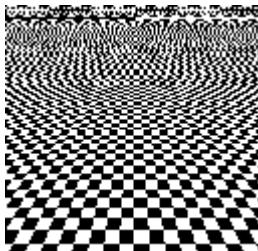


One license file enables you to set up a maximum of five file output/gravure output devices.

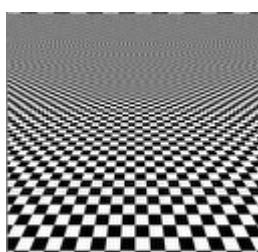
16.1.1 What is the File Output Option?

The File Output Option was developed to enable you to print to a number of different file formats.

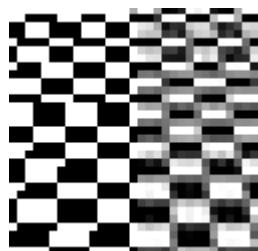
16.1.2 What is the EFI Gravure Output Option?



Aliased image



Anti-aliased image



Magnified view of combined aliased image (left) and anti-aliased image (right)

This add-on option enables you to create separated grayscale TIFF files with automatic anti-aliasing. Anti-aliasing is the term used to describe the removal of jagged edges to give the appearance of smoother edges and higher resolution.

It works by taking into account how much an ideal edge overlaps adjacent pixels. The aliased edge simply rounds up or down with no intermediate value, whereas the anti-aliased edge gives a value proportional to how much of the edge was within each pixel. The effect of applying anti-aliasing is illustrated in the diagrams.

16.2 Settings for printing to file

If you have a license file for an output option, EFI XF is extended as follows:

In System Manager, additional device type settings become available on the “Printer” tab of the “Output” bar. When a print-to-file device type is selected, additional export settings can be made which are pertinent to the output file. Here you:

- define where to save your files
- select a device link and simulation profile
- select a compression method. You can choose between “None”, “ZIP” and “JPEG”. Refer to “Compression” on page 4-25 for further information, if required.
- select a print resolution
- specify whether the resolution setting should be ignored for non-PostScript files

In Job Explorer, you will find these settings on the “File Export” tab of the “Output” bar.

16.3 Printing to file

To print to file, proceed as follows:

1. Start EFI XF and log on as a user with administrator privileges.
2. Open System Manager and click “New output device” in the toolbar.
3. Make the required settings on the “Printer” tab to define a name and select the device type. In this case, you must select an EFI file output format from the drop-down list box.



File output settings have the format “EFI xxx Output”, where xxx stands for the file type.

4. Define a path to the folder in which the output files will be saved.
5. Select the check box “Use Device Link profile”, if required, and choose a profile from the drop-down list box. Device link profiles must be saved to the folder “Server\Profiles\Reference”.
6. Select a simulation profile.
7. Select a compression method, if required. Which types of compression are available depends on the file format you are printing to.
8. Specify a resolution, if required.
9. Select the check box to keep the input resolution of non-PostScript files, if required. This setting is useful, for example, if you want to convert a set of digital files to a single color space without affecting the resolution (size) of the original images.
10. Set up a system workflow and save your settings.



If you are using the Gravure Output Option, your print jobs are automatically processed as grayed separations.

You are now ready to print to file. Follow the instructions in “Printing and monitoring print jobs” on page 7-1 for further information.

17 Fiery Option

The Fiery Option is available as an add-on module. This chapter describes how to set up a workflow to print to an EFI Fiery output device.

17.1 What is the Fiery Option?

The Fiery Option was developed to enable you to print directly from EFI XF to any EFI Fiery output device.



One license file enables you to set up a maximum of five output devices.

17.2 Fiery Option settings

If you have a license file for the Fiery Option, EFI XF is extended as follows:

In System Manager, the device type "EFI Fiery" becomes available on the "Printer" tab of the "Output Device" bar.

17.3 Printing to an EFI Fiery output device

To print to an EFI Fiery output device, proceed as follows:

1. Start EFI XF and log on as a user with administrator privileges.
2. Open System Manager. In the toolbar, click "New Output Device".
3. On the "Printer" tab, make the required settings to define a name and select the device type. In this case, you must select "EFI Fiery" from the drop-down list box.



If you do not want to print directly to an EFI Fiery output device, you can save your print jobs to PDF format instead by selecting "EFI PDF Output" from the drop-down list box.

When you select "EFI Fiery", a number of export settings become available. Here you:

- define where to save your files
- select a compression method. You can choose between "None", "ZIP" and "JPEG". Refer to "Compression" on page 4-25 for further information, if required.

4. On the "Port" tab, make the required settings to set up a connection to your printer. The default setting for the Fiery Option is "Print to file". However, you can change this setting and output print jobs to a network printer, if preferred.



To set up a connection to a network printer, proceed as follows:

Select the radio button "Print via network" and type the IP address of the EFI Fiery output device. Then click "Test" to check that a connection has been set up.

Select the radio button "LPR. The queue name is:." Then type in a queue name.

- Type "Print" to print jobs according to the settings defined for the EFI XF workflow and for the Fiery Command WorkStation. No manual settings are possible.
- Type "Hold" to stop jobs before printing to enable you to make job-specific settings at the Fiery Command WorkStation.
- Type "Direct" to print jobs directly. Jobs printed via this queue are deleted immediately after completion; they are not saved, nor are they displayed on the Fiery Command WorkStation. This setting is intended for the printing of confidential documents.



Please note that if you have previously defined an export path on the "Printer" tab, this will become disabled as soon as you select any printer connection other than "Print to file".

5. Make the required settings on the "Quality" tab to define the print settings to be applied to your print job.



EFI XF does not provide any generic media profiles for the Fiery Option. To achieve high-quality results, it is recommended that you create your own media profiles using Color Manager.

When defining a name for a customized media profile in Color Manager, it is important to ensure that the device is easily identifiable.

This is because all Fiery output devices are selected as "EFI Fiery" on the "Printer" tab. Therefore, the media profiles for all EFI Fiery devices are displayed on the "Quality" tab.

6. Make the required settings on the "Media" tab to define the source and the size of the media inserted in the printer.

The source setting is set to "Automatic" and cannot be changed.

7. Set up a system workflow which includes the EFI Fiery output device and save your settings.

You are now ready to send print jobs to an EFI Fiery output device. Follow the instructions in “Printing and monitoring print jobs” on page 7-1 for further information.



Please be aware of the following:

If you make job-specific settings at the Fiery Command WorkStation, the color management settings from the Fiery Command WorkStation are applied on top of the color management settings from EFI XF. The result is non-accurate color output.

Therefore, it is important that you do not perform any job settings at the Fiery Command WorkStation.

18 Troubleshooting

This chapter tells you how to proceed if you encounter problems while working with EFI XF. If, after performing the suggested solution, the problem still persists, please contact EFI at the addresses given in the section "One-bit tiff error in XF "Unknown spot colors detected"" on page 18-9.

18.1 Server/Logging on

I cannot see the Server user interface? How can I login?

Cause	The Server runs as a service, so it has no user interface. All actions are initiated in the Client software.
Remedy	To start the Client, click the program icon on the desktop (Windows) or in the Dock (Macintosh) to open the Login window.

I am working with Windows XP, SP 2. The Server does not accept any connection from a Client. What can I do in this case?

Cause	A firewirewall is set up during the installation of Service Pack 2. Firewall is currently not supported by EFI XF.
Remedy	Unlock ports 50005 - 50025. Please refer to Windows help for further information.

Although I am able to log on to EFI XF successfully, I cannot see any users, workflows or output devices.

Cause	A firewirewall is set up during the installation of Service Pack 2. Firewall is currently not supported by EFI XF.
Remedy	Unlock ports 50005 - 50025. Please refer to Windows help for further information.

When I try and log on, I get the error message "The user 'admin' is unknown. Please make sure that you type in the correct name."

Cause The file `usr_0000.xml` may be missing.

Remedy In the folder ".../Server/Tickets", search for the file `usr_0000.xml`.

If you find the `usr_0000.xml` file, cut and paste it to a destination outside the "Tickets" folder. Then restart the Server. A new `usr_0000.xml` file is automatically created.

If the `usr_0000.xml` file is missing but you find a `usr.0000.bak` file, restart the Server. During Server restart, a new `usr_0000.xml` is automatically created.

If you cannot find either a `usr.0000.xml` or a `usr.0000.bak` file, contact EFI Support for a new `usr.0000.xml` file. When you receive the file, copy it to the ".../Server/Tickets" folder.

The start screen opens briefly and then closes. Why is this?

Cause This behavior occurs because Microsoft Windows XP SP2 uses the Data Execution Prevention (DEP) feature to help prevent damage from viruses and from other security threats.

Remedy Deactivate Data Execution Prevention for EFI XF as follows:

1. Right-click on "My Computer" and choose "Properties" from the context menu.
2. In the "System Properties" dialog, select the "Advanced" tab.
3. Click the "Settings" button for performance.
4. In the "Performance Options" dialog, select the "Data Execution Prevention" tab.
5. Select the radio button "Turn on DEP for all programs and services except those I select." Then click "Add" and navigate to the "Client" folder.
6. Select the file "EFI XF.exe" to add it to the list of programs which are not affected by DEP.

18.2 Licensing

The license file downloaded from the activation website cannot be installed.

Cause	The downloaded license file may have the wrong file extension.
Remedy	<p>Check the file extension of the license file. Licenses with the extension *.txt are not recognized in EFI XF. Change the file extension from txt to lic.</p> <p>If the file extension is not visible, go to "Control Panel\Folder Options", select the "View" tab and make sure that the setting "Hide extensions for known file types" is not selected.</p>

There is no valid license

Cause	EFI XF Control may not be running.
Remedy	Make sure that EFI XF Control is online before trying to log onto the Client. Right-click the EFI XF Control icon and select the menu command "EFI XF Server Start" from the context menu.
Cause	One or more Windows services required by EFI XF may not be running.
Remedy	<p>Open Control Panel and select first "Administrative Tools" and then "Services". Check that the following services are started:</p> <ul style="list-style-type: none">• EFI License Manager• EFI XF Server• DebugLog <p>If necessary, select the service that is currently not running and click "Restart the service".</p>
Cause	The dongle is not recognized.
Remedy	<p>Connect the dongle to a different USB port.</p> <p>To check whether the dongle is recognized, right-click on the EFI XF Control icon and select "Show dongle ID" from the context menu.</p>

Cause	The license file may have been generated for an incorrect dongle ID.
Remedy	<p>Make sure that the right dongle ID is shown in the license file(s) of the purchased options.</p> <p>To check the dongle ID, right-click the EFI XF Control icon and select the menu command "Show dongle ID" from the context menu.</p> <p>To verify the dongle ID of the license, open the Program Files\FlexLM folder. Then open the license file in a text editor (e.g. Wordpad).</p> <p>Check that the license file contains the following information:</p> <ul style="list-style-type: none"> • The name of the Server computer • The dongle ID
Cause	If you are updating from an earlier version of the software, the licenses from that version may have been deleted from the FlexLM folder.
Remedy	<p>EFI XF requires the license files from all earlier versions in addition to the upgrade license. If necessary, reinstall previously removed licenses via the "Include new license file" command of EFI XF Control.</p> <p>You can check which licenses are installed by selecting "EFI XF Server Information" from the "?" menu (Windows) or from the "Help" menu (Macintosh). You must have a license for at least one Server, one Client and one Output Option M.</p>
Cause	The system date and time may not be set up correctly.
Remedy	Check the BIOS setting in Windows.

You are unable to set up or connect any more output devices

Cause	You are trying to set up or connect an output device. However, you do not have enough Output Option licenses.
Remedy	<p>You can get round the problem by setting up any number of printers with the same IP address or USB port.</p> <p>Proceed as follows:</p> <ol style="list-style-type: none"> 1. Disconnect all workflows from all output devices. 2. On the "Printer" tab, check the device type of each printer. 3. On the "Port" tab, check the port settings of each printer. 4. Save the settings and reconnect the workflows.

18.3 Printing

Invalid page height

Cause	The information from the bounding box is not taken into account.
Remedy	In System Manager, highlight the workflow. Then, on the "PS/PDF" tab of the "Input" bar, select "Calculate page size".

Linearization cannot be processed

Cause	A corrupt epl is being applied.
Remedy	<p>In System Manager, check the media set selected for the output device.</p> <p>Try deleting the epl for the selected media profile from the "EFI XF Profiles" folder. A new epl file is automatically created when you restart the Server.</p> <p>If this does not help, try repatching the epl and the icc profile using Profile Connector, a tool provided with EFI Color Manager.</p>

Command Error

Cause	Some printers can be used with two different types of ink (e.g. Ultrachrome Photo and Matte). The error message occurs if the type of ink selected in EFI XF does not match the type of ink inserted in the printer.
Remedy	Make sure that you select the right type of ink for the output device. The black ink cartridge lets you identify the type of ink being used. Make the correct ink type setting on the "Quality" tab of the "Output Device" bar.

I am unable to load any jobs. Why?

Cause You may not have enough valid printer/output licenses.

Remedy To check whether you have enough licenses, proceed as follows:

1. In System Manager, disconnect all workflows from all output devices.
2. Highlight the linearization device, select the "Port" tab and choose "Select device type" from the drop-down list box.
3. Connect one workflow to one output device.
4. In Job Explorer, try and load a job.

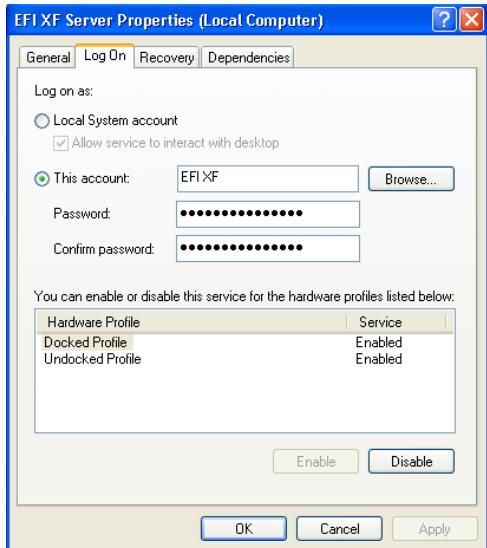
If you are still not able to load a job, ensure that the amount of used disk space does not exceed 95%. If necessary, free up additional space on the hard disk.



During job processing a bco file is created in the default folder ".../Server/Output". You can reduce the amount of hard disk space required by EFI XF during job processing by redefining this path, e.g. to a folder on a different drive. Proceed as follows:

1. Stop the Server.
2. Open the folder ".../Server/Tickets".
3. In a text editor, open the file sys_0000.xml
4. Search for the line beginning <Print type= and type in a new path.

I have created a hotfolder but am unable to submit print jobs to it. What is the problem?



The EFI XF Server runs on Windows as a service. By default, the login rights are defined for the local computer. This means that EFI XF is not able to communicate with folders located in a network environment. This may present problems, for example, if you wish to print jobs via a hotfolder. In this case, you need to assign network access rights for the EFI XF Server.

Refer to "EFI XF Server Configuration (Windows only)" on page 9-3 for further information.

Selected profile is invalid

Cause There is something wrong with the selected simulation profile. This error message may also be displayed if you try and use a corrupt vcc file, 3cc file or a non-patched profile.

Remedy Check that the simulation profile is indeed corrupt. Proceed as follows:

- If the job file is in CMYK (with no spot colors), try and process the job without applying color management.
- Create a new workflow and try and process your job file using default color management settings (stock simulation profiles, etc.).

If either of these two methods works, correct the color management settings in the original workflow.

If neither of these methods works, the simulation profile is probably corrupt. Try reconnecting it to the epl using the profile connector tool of EFI Color Manager or EFI LinTool.

18.4 Color management

Initialization of CMM failed

Cause This could be a wrong setting on the "Color management" tab or the media profile may be corrupt.

Remedy Check the color management settings defined for the workflow.

Check the quality settings made for the output device.

18.5 Media profiles

I am trying to use a media profile that I have received from a supplier. Why is the name not available for selection in EFI XF?

Cause A media profile must always be “patched” to an epl file in order to be available for selection in EFI XF.

Remedy Make sure that the media profile has been “patched” to an epl file using “Profile Connector”. This tool is a standard component of EFI LinTool and EFI Color Manager.

I have created a media profile, but why is it not available for selection in EFI XF?

Cause The profile may not be saved under a unique name, making it difficult to recognize in the list of available media profiles.

Remedy It is recommended that you create a base linearization for a unique media name, so that the profile can be more easily found in EFI XF.

Cause The epl file is not saved in the “Profiles” folder.

Remedy

- Make sure that the epl file is saved in the “EFI XF Profiles” folder.
- From the folder “..../Server/Tickets”, use a text editor to open the file sys_0000.xml. Search for the line beginning <PaperProfiles type= and check that the correct path is entered.
- From the folder “Server/Tickets”, remove all files with the name ppr_xxxx.xml and save them to a different folder outside the EFI folder. These files contain the path from the epl to the icc profile. When you restart the Server, the files are automatically recreated.

Why do I receive the error message “Selected profile is invalid”?

Cause The media profile may not be correctly “patched” to the epl file. Only media linked to an epl file are listed on the “Quality” tab for the output device. If the media is not listed, it could be because EFI XF is not able to detect the epl.

Remedy Make sure that the media profile has been correctly “patched” to an epl file using “Profile Connector”. This tool is a standard component of EFI LinTool and EFI Color Manager.

On the “Color management” tab, check the profile selection for the workflow.

18.6 Add-on modules

EFI Color Manager, EFI Color Verifier, EFI Color Editor or EFI Dot Creator will not launch in Windows 2003 Server/Windows XP

Cause	Data Execution Prevention may be deactivated.
Remedy	<p>Activate Data Execution Prevention. Proceed as follows for Windows XP (the settings may vary slightly if you are using Windows 2003):</p> <ol style="list-style-type: none">1. Right-click on "My Computer" and choose "Properties" from the context menu.2. In the "System Properties" dialog, select the "Advanced" tab.3. Click the "Settings" button for performance.4. In the "Performance Options" dialog, select the "Data Execution Prevention" tab.5. Select the radio button "Turn on DEP for essential Windows programs and services only".

One-bit tiff error in XF "Unknown spot colors detected"

Cause	The syntax is not correct for the naming of the one-bit tiff.
Remedy	On the "One-bit" tab, select the check box "Extract color separation from file header".

18.7 USB measuring devices

When I connect my USB measuring device to the computer, I am requested to install the device driver. Should the device driver not be detected automatically?

Cause	Occasionally the device driver may not be detected automatically when you connect the USB device to the computer.
Remedy	<p>The device drivers are copied to the program folder "...\\EFI\\Tools\\USB Measurement Devices" when you install the software.</p> <p>If the wizard prompts you to install the device driver from CD, browse to the folder "...\\EFI\\Tools\\USB Measurement Devices" and select the appropriate device driver.</p>

18.8 EFI Support

If you run into difficulties while working with EFI XF and you cannot find the solution in this manual, please contact EFI Support.

For the first thirty days after license activation EFI provides free customer support to end users. You will find the contact details for your region on the following web page: <http://www.efi.com/support/prepress/proofing>.

After the thirty-day period, EFI offers a full software support service either on a 12-month or on a per-incident basis. Visit <http://www.efi.com/support/prepress/proofing/colorproof-xf-contracts.asp> for further details.

Please make sure to provide the following information when contacting our Support office:

- Version name and release number of your software
- License information
- Printer model
- Operating system with version number

Any additional hardware and software you may have installed (e.g. ISDN boards, virus scanners, etc.)

18.8.1 EFI Bestcolor Knowledge Center

EFI has set up an online knowledge center to supplement the information found in this user manual. The EFI Bestcolor Knowledge Center is filled with useful information and tips on working with EFI XF. Therefore, if you are having trouble getting to grips with a certain feature of EFI XF, please visit our website at <http://www.efi.com/services/proofing-services/knowledge-center.asp>.

18.8.2 Online user forum

The online forum is open to all users of EFI XF. It enables you to post questions related to any area of EFI XF directly to members of the EFI team. Furthermore, it permits open discussion with other forum members and thus provides an ideal platform for communicating with other users. To register as a forum member visit our website at <http://proofingforums.efi.com>.

19 Uninstalling

This chapter describes how to uninstall EFI XF, the profiles and Unidriver. The dialogs may vary slightly, depending on the application you are uninstalling.

19.1 Windows

To uninstall, proceed as follows:

1. Open "Control Panel".
2. If you are working with Windows XP, double-click "Add or Remove Programs".
If you are working with Windows 2003, double-click "Software".
3. In the list of installed programs, select the application you want to uninstall and click "Remove". The "Welcome" dialog opens:
4. Select the radio button "Remove" and click "Next". A dialog opens in which you are asked to confirm that you want to remove the selected application and all of its features.
5. Click "Yes" and follow the on-screen instructions to complete the procedure.



Make sure to restart your computer before reinstalling.



19.2 Macintosh

To uninstall, proceed as follows:

1. Insert the software CD for your operating system into the CD-ROM drive.
2. Double-click the program icon to start the setup procedure and follow the on-screen instructions until you come to the "Custom Install" dialog.
3. From the pop-up menu, select "Uninstall".
4. Click "Uninstall" and follow the on-screen instructions to complete the procedure.



Make sure to restart your computer before reinstalling.



Glossary

This glossary gives a brief explanation of the terms used in this manual.

Base linearization

Printers do not work in a linear fashion and achieve their maximum color density at approximately 50%. As a result, test charts for creating profiles do not have differentiated color patches for the upper chromatic values.

A base linearization makes the density curve of the printer linear (input value = output value), thus creating an important basis for ICC-compatible color management.

CIE 94

A tolerancing system utilizing three-dimensional ellipsoids as containers for color acceptance. CIE 94 is similar to CMC but lacks some of the hue lightness adjustments. CIE 94 colors have 95% agreement with color differences as our eyes see them. CIE 94 is used predominantly in the paint and coatings industry.

CIELAB

A color model based on the model proposed by the Commission Internationale d'Eclairage (CIE) in 1931 as an international standard for color measurement. In 1976, this model was refined and named CIELAB. L*a*b* color is designed to be device-independent and perceptually uniform. L*a*b* color consists of a luminance or lightness component (L*) and two chromatic components: the a* component (from green to red) and the b* component (from blue to yellow).

CIELCH

A color space similar to CIELAB, which uses cylindrical coordinates of lightness, chroma, and hue angle instead of rectangular coordinates.

CMC

A tolerancing system based on CIELCH. It portrays colors as three-dimensional ellipsoids and represents colors as they are interpreted by the human eye. CMC colors have 95% agreement with color differences as our eyes see them. CMC is used predominantly in the textile industry.

Compensation of plate characteristic

A function to linearize a non-linear plate characteristic of one-bit files before they are processed in color management. This enables the use of media profiles that are based on linear continuous-tone data.

To produce a color-accurate proof from non-linear plate characteristics calculated into the one-bit files requires a media profile that is based on the IT8 target using the non-linear one-bit files.

csv

A file format for saving color measurement results in Color Verifier. A csv file can also be opened and edited in any spreadsheet application.

Delta E

The distance in CIELAB color space between two colors. Delta E is used to indicate total color difference and establish quantitative color tolerances.

Dot gain

The neutral growth of ink dots caused by ink spreading around halftone dots. This can be caused, for example, as a result of ink being absorbed into the paper or ink being forced outward by the pressure of printing.

EFI Remoteproof Container

The file format used to send the image file and settings from one location to another. The EFI Remoteproof Container consists of a pdf file (print file) and a jdf file (settings file), which are compressed into a single file, the so-called EFI Remoteproof Container with the file extension RPF.

Final Page

A third file that is often produced in addition to CT and LW files during TIFF/IT file creation. A final page file contains information extracted from the CT and LW files and ensures that:

- CT and LW files are clearly recognizable as belonging to the same print job
- photos are always correctly positioned at the right coordinates in the final output file

A final page is essential if you are printing a job with a photo that is not positioned in the top left corner of the page.

Gamma

The ratio of the contrast range between original and reproduction. A gamma value of 1 means that the original and copy proof have the same contrast range.

Halftone screening

A process by which a continuous-tone image is converted into a pattern of regularly spaced dots. The individual dots all have the same density, but vary in size. The color tone of a printed area is dictated by the size of the printed dots — the larger the dots, the darker the reproduced color tone.

jdf

A file format used in the graphics industry to standardize communication between the individual pre-press, print and further processing stages.

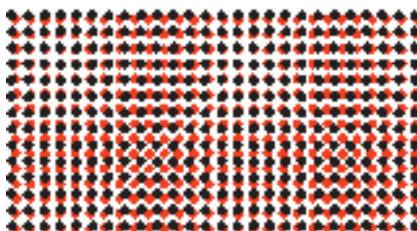
The jdf file contains all the settings that affect color reproduction, including print resolution and media.

L*a*b*

See *CIELAB*.

Moiré

An interference pattern caused by incorrect selection of halftone screen angles relative to each other. Moiré can be minimized by keeping a 30-degree angle between the separate halftone screens. However, with a total of four colors and 90 degrees of angle to play with, this is not possible. To overcome this issue, yellow — the lightest and least visible color — is often positioned only 15 degrees away from cyan and the halftone angles are rotated 7.5 degrees from the vertical axis.



pdf

Portable Document Format. A method of formatting documents in such a way that they can be viewed and printed on multiple platforms using the freely available Adobe Acrobat Reader™.

Printer relinearization

A process to re-adjust the color densities and return the printer to the original state used to generate the base linearization.

Quantity of color

A process to define the maximum quantity of ink for each ink channel and so prevent colors from becoming oversaturated and »bleeding«.

RGB

The additive color system used in digital cameras and computer monitors where red, green, and blue light is captured separately and then combined to create a full color image.

Screen angle

The degree of rotation at which a halftone screen is printed. Each element in a four-color separation must be photographed through a screen that has been placed at a specific angle in order to eliminate moiré patterns when the colors are superimposed. Precise alignment is necessary and the order in which the color separations are printed can also affect the finished print image. See also *Halftone screening* and *Moiré*.

Screen ruling

The number of lines per centimeter or per linear inch in a halftone screen. The higher the screen ruling, the smaller the dot size and the smoother the tonal changes will appear to the eye. See also *Halftone screening*.

System workflow

A system workflow consists of a user, workflow and output device. It refers to all work processes from file input by a user to file output on a specified printer.

TIFF/IT

When image data is saved to TIFF/IT format, the pixel data of a job is saved to two different files:

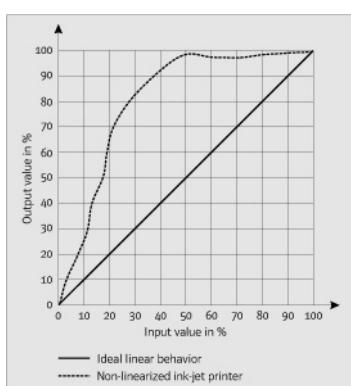
- The CT (continuous tone) file describes low resolution and half-tone data (e.g. photos). A CT file may also be created for each separated spot color.
- The LW (line work) file describes high resolution text or line graphics.

In order for the print job to be output, these files have to be combined back together.

Total ink limit

The total ink limit describes the point at which a printer attains its maximum color density.

Most inkjet printers do not increase color density in a linear fashion. In many cases, the maximum color density is achieved at approx. 50%, as illustrated in the graph.



White point

In printing, the white point describes the whiteness of the paper. In colorimetric terms, the white point is defined as the chromaticity of a white light source or other emissive object. The white point may be expressed in terms of correlated color temperature or chromaticity coordinates.

XYZ

A device-independent color model developed by CIE (Commission Internationale de l'Eclairage), in which RGB values are mathematically transformed into a system that uses x, y and z as coordinates. While x and z values have no specific perceptual correlation, the y value represents brightness (luminance).

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